Market Share and Religious Competition: Do Small Market Share Congregations and Their Leaders Try Harder?

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A central claim of the religious economies model is that religious competition affects levels of religious participation and commitment primarily because religious competition pushes the suppliers of religion (religious leaders and organizations) to market their faith more vigorously and effectively. We examine whether U.S. congregations experiencing greater religious competition measured by their smaller religious market share do more to recruit new members, offer more services to current followers, and whether their clergy work longer hours. The efforts of congregations and clergy do vary substantially, but this variation is not related to their denomination's market share. The variations are also not due to religious pluralism, intradenominational competition, or evangelical market share. Members of small market share congregations are more committed, but this higher commitment does not appear to arise because religious suppliers are responding to religious competition. Several alternative explanations for the higher commitment levels of small market share groups are offered with a discussion of the implications for theories of religious competition.

Advertisements for Avis acknowledge that Avis is not the largest car rental company. Nevertheless, despite their smaller size, or perhaps because of their smaller size, Avis claims "We Try Harder."[1] Prominent proponents of the religious economies perspective have suggested that the same is true for religious groups (Stark 1992, 1998; Stark and McCann 1993; Stark and Finke 2000; Finke and Stark 2003). Religious groups with a smaller share of the "religious market" (the total pool of religious adherents in an area) face greater "religious competition" for adherents from the larger surrounding religious groups. In order for these smaller groups to survive, they must "try harder" to recruit new members and raise time and money contributions among current members.

As we describe in more detail below, a broad range of findings show that current members of small market share congregations and denominations have higher commitment levels (measured in a number of different ways) than members of the same type of religious group located in areas where the group has a larger market share. For example, the average member of a Lutheran congregation in Alabama (where Lutherans are scarce) contributes more money and attends church more regularly than the average member of Lutheran churches in Minnesota where Lutherans are common (Olson and Sikkink 2004; Brewer, Jozefowicz, and Stonebraker 2006). In fact, the general finding that small market share religious groups have higher member commitment levels may currently stand as the most consistent and, so far, unquestioned confirmation of predictions made by leading proponents of the religious economies model.

But do these higher commitment levels arise because small market share congregations and their leaders are "trying harder"? For example, do clergy in small market share congregations work longer hours? Do small market share congregations and clergy engage in more recruitment efforts than congregations and clergy in larger market share areas? In other words, is greater

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[1] Although Avis no longer runs television commercials that stress the "We try harder" slogan, they continue to use it as a prominent slogan and logo image on their website and on promotional materials.

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effort on the part of religious suppliers the causal mechanism linking small market share to higher member commitment levels among current members?

These questions are important because the most central claim of the model proposed by Rodney Stark, Roger Finke, and other advocates of the religious economies approach to understanding religion is that religious competition (measured either as religious pluralism, small market share, or in a variety of other ways) leads to higher levels and rates of religious participation. Among the arguments supporting this claim one can identify two major mechanisms through which religious competition increases religious participation. The first is what we call the *demand matching* mechanism, when more numerous and more diverse competing religious groups are available to better conform to the diversity of religious needs and preferences of the population, more people will participate in religion and the average commitment levels of these participants will be higher. With more competing groups, more people can find a religious group that meets their particular religious needs. Though important, the demand matching mechanism is not the focus of this article. Instead, we focus on the second mechanism, what we call the *effort* mechanism. According to this claim, greater competition from other religious groups stimulates each religious group and especially the group's leaders to work more vigorously and/or creatively to secure more followers and garner greater religious commitment from their current followers. Despite the central importance of this claim to supply-side explanations of how religious competition works, there are, to the best of our knowledge, no direct tests of the effort mechanism in published form.

For reasons explained below, this article gives special attention to tests of the effort mechanism as it is claimed to function in response to small religious market share. However, we also test whether greater leader and congregational efforts arise in response to greater religious competition measured in several other ways suggested by religious economies scholars, e.g., religious pluralism, the number of nearby congregations belonging to the same denomination (intradenominational competition), and the presence of nearby groups known to be more "competitive" in actively seeking converts.

We recognize that religious competition can be conceptualized and measured in ways other than those proposed by Stark, Finke, and other prominent religious economies theorists. We also recognize that some of these other ways of thinking about religious competition may play an important role in understanding religious behavior without involving the effort mechanism. Nevertheless, among sociologists of religion who champion the religious economies approach, the notion that religious competition stimulates religious suppliers to exert greater effort (the effort mechanism) plays a central explanatory role. Thus, we test the effort mechanism by asking whether a number of broadly used measures of religious competition do, in fact, stimulate religious leaders to work harder or cause congregations to engage in more outreach to recruit new members.

Using data from a broad range of denominations in the U.S. Congregational Life Survey, we find that small market share congregations and their clergy do not "try harder." The efforts of congregations and clergy do vary substantially, but this variation is not related to their denomination's market share. Nor are leader and congregational efforts related to other measures of religious competition, including the religious pluralism of the county, the number of congregations in the same denomination in the same county (congregations that one might assume are competing for the same adherents), and larger evangelical Protestant market share in the same county. Regardless of which measure of religious competition we use, we find no support for the "effort mechanism."

If small market share congregations and their leaders are not working harder in response to greater competition, then what explains the consistent, robust findings of higher per capita financial giving of small market share congregations? In the next to last section of the article we discuss three alternative explanations for why small market share congregations fairly consistently have higher per capita giving, explanations that do not depend on the "effort mechanism." We

conclude by asking how our failure to find evidence of the effort mechanism affects broader claims that religious competition stimulates religious vitality.

Previous Theory and Research

In recent years, a small but growing literature has shown that small market share religious groups have more committed members. This negative relationship appears to hold with a couple of important exceptions (e.g., Phillips 1998) across many different kinds of religious groups, across many measures of religious commitment, and across many geographic units of analysis such as counties (Zaleski and Zech 1995), Catholic dioceses (Perl and Olson 2000), states (Stark and McCann 1993), and whole countries (Stark 1992). Stark (1992) and Stark and McCann (1993) were among the first to highlight this negative relationship. Stark and McCann found that U.S. Catholic dioceses have higher rates of young Catholic men seeking the priesthood when the number of Catholics (reported by the Catholic church) is a smaller part of the total population of the geographic area covered by the diocese. Stark (1992) found a similar pattern in rates of seminary ordinations for whole nations (higher in nations where Catholics are a minority of the population). Likewise, rates of subscription to *Catholic Digest*, a Catholic journal read by lay Catholics, is higher in states with lower Catholic population shares (Stark 1998). Per member financial giving (total member contributions divided by total members) has been found to be higher across a broad range of denominations, conservative and liberal, e.g., Assemblies of God, Catholics, Church of the Nazarene, Southern Baptists, Evangelical Lutheran Church in America, Missouri Synod Lutherans, United Methodist Church, Presbyterian Church USA, United Church of Christ (Perl and Olson 2000; Stark and Finke 2004; Brewer, Jozefozicz, and Stonebraker 2006). The percentage of Jews in a metropolitan area that contribute to Jewish Federation Fund drives is higher in U.S. cities where Jewish population shares are lower (Rabinowitz, Lazerwitz, and Kim 1995).

This general finding of higher commitment levels in low market share areas is important in its own right, but it is especially significant since it currently stands as the most consistently supportive and generally unquestioned evidence in favor of the claim that religious competition boosts rates of religious participation and levels of religious commitment, the most central claim of the religious economies model according to its key proponents (e.g., Stark and Iannaccone 1996; Stark and Finke 2000:201). Unfortunately, it is not very clear what religious competition is. Despite its theoretical centrality, it is hard to find a clear definition of the term. It is not, for example, one of the many consecutively numbered concepts defined in *Acts of Faith*, Stark and Finke's (2000) major work that systematically sums up their religious economies approach. In this work they do note (2000:218) that "unfortunately, competition is one of those concepts that is very difficult to measure, except indirectly."

Tests of religious competition's effects have thus relied on tests of two variables that are thought to be reflections of religious competition: religious pluralism and religious market share.[2] *Religious pluralism* has received more attention in the literature, but has proven to have an inconsistent relationship with religious involvement across geographic areas (see Chaves and Gorski 2001 for a review). Moreover, Voas, Olson, and Crockett (2002) find that statistical/mathematical issues invalidate most of the past research and have made new research on pluralism's effects problematic. Research on pluralism published since 2002 either does not deal with the problems described in Voas, Olson, and Crockett (e.g., McCleary and Barro 2006a, 2006b; Norris and

[2] Another variable, the level of state involvement in (both restriction of and subsidy to) religion, has also been used in tests of religious economies hypotheses. However, state involvement is usually viewed not as a measure of religious competition, but a *cause* that suppresses religious competition. Thus we do not treat the state regulation of religion as a *measure* of religious competition.

Inglehart 2004), or reaches inconsistent conclusions (e.g., Montgomery 2003), or actually finds a negative effect (Koçak and Carroll 2008). Currently, it is unclear whether pluralism has any robust and general effect on rates of religious participation or levels of commitment.

Because research on pluralism has run into methodological problems, the wide ranging, robust results showing a negative relationship between market share and a variety of measures of religious commitment now stand as the least questioned, most supportive type of evidence favoring the claim that religious competition boosts religious vitality. How exactly does this happen?

Using economic analogies, Stark and Finke distinguish between religious consumers and religious suppliers. "Religious economies are like commercial economies in that they consist of a market made up of a set of current and potential customers and a set of firms seeking to serve that market" (Stark and McCann, 1993:112). In order to explain variations in adherent ("customer") rates of religious involvement or commitment levels, this approach focuses on the number and variety of different religious groups ("firms") in an area (the demand matching mechanism) and the vigorousness with which these religious suppliers market their products (the effort mechanism). The more firms there are and the more vigorous their marketing efforts, the more religious consumers will participate. But what explains variations in the vigor with which religious firms market themselves? As noted above, the key variable is religious competition from other religious firms. When there is little religious competition "the dominant firm(s) will be too inefficient to sustain vigorous marketing efforts and the result will be a low overall level of religious commitment" (Finke and Stark 2003:103).

Market share is important because it is viewed as an inverse indicator of religious competition. When a religious group has very large market share it can become a virtual monopoly with no serious competitors. Quoting Adam Smith, Stark and McCann (1993:113) argue that the clergy in religious monopolies tend to become lazy. Adam Smith's argument refers specifically to state supported religious monopolies in which the clergy are lazy because they are assured a salary regardless of how much effort they put forth to meet the religious needs of the populace. But Stark and McCann (1993) and Stark (1998) extend Smith's argument to explain variations in commitment levels among Catholic dioceses in the United States where there are no state supported religions.[3] All else being equal, "monopoly faiths will tend to be lazy and will fail to mobilize high levels of commitment" (Stark and McCann 1993:118). Similarly, Finke and Stark (2003:103) claim that all else being equal, "individual religious groups will be more energetic and generate higher levels of commitment to the degree that they have a marginal market position—lack market share."

Summing up, this version of the religious economies model explains the widely found negative correlations of denominational market share and member commitment levels as resulting from a three-step causal chain. In its most general form one might diagram the effort mechanism as (1) religious competition –> (2) religious supplier efforts –> (3) member commitment levels.

In this article we do not question the existence of an overall negative association between denominational market share (one variable used to measure religious competition, step 1 in the causal chain) and current member commitment levels (step 3 in the causal chain). In fact, we find this same negative correlation in the data we examine below. Neither do we question the positive correlation between the efforts of religious suppliers (step 2 in the causal chain) and current member commitment levels (step 3 in the causal chain), a relationship that may actually be bidirectional. Rather, we question the causal connection between measures of religious competition (step 1 in the causal chain) and the efforts of religious suppliers (step 2 in the causal

[3] Several objections are raised by Peterson (2009) concerning the theoretical application of Smith's ideas to the literature on religious markets. Peterson makes clear that Smith was not ideologically opposed to state intervention in religious markets, particularly when religious monopolies threatened to develop.

chain). We do not think religious competition causes existing religious groups to work harder or more creatively.

Data and Methods

Our primary data source is the U.S. Congregational Life Survey (USCLS). The USCLS utilizes a national sample of 1,214 U.S. congregations drawn by NORC (a survey research center located at the University of Chicago) in the year 2000.[4] Of these, 434 (34 percent) congregations ultimately elected to complete the study. In order to assess whether the low response rate biases our findings, we also analyzed very similar congregational-level data (and similar questions) from the National Congregations Study (1998) that had a response rate of 80 percent. Using the NCS data we obtained very similar results to those reported here. However, because the NCS data include no measures of clergy work hours, we decided for reasons of space to focus our analysis only on the USCLS study with its more extensive set of questions relevant to our analysis.

The USCLS consists of self-administered congregational profiles ($N = 434$), leader surveys ($N = 355$), and congregant surveys ($N = 122{,}404$). All worship attenders present on a weekend in April 2001 completed the congregant survey. The senior clergy person at each congregation completed the leader surveys and a knowledgeable informant (usually the senior clergy person) completed the congregational profiles for each congregation. The present research uses all three surveys, aggregating the congregant-level data to the congregational level. See Woolever and Bruce (2004) for more details of the USCLS sampling and research methods.

We merged the data from each congregation with county-level data from the 2000 U.S. Census and the 2000 Religious Congregations and Membership Survey (RCMS) for the counties in which each congregation is located.[5] The census data allow us to account for variables such as rural or urban location that might affect a congregation's outreach efforts. The RCMS is a count of religious members and adherents derived from information submitted by 149 major religious bodies in the United States.

We test our hypotheses using OLS regressions. Robust standard errors were used in models that fail the standard Breusch-Pagan/Cook-Weisberg test for heteroskedasticity. We also ran multi-level models with counties as the second, contextual, level, but found that the results were nearly identical[6] to the more familiar OLS regression results that we report here. We handle missing data with list-wise deletion.

Measures of Religious Competition

Although, as our title suggests, we give special attention to denominational market share, we also consider three other possible county-level measures of religious competition suggested in the religious economies literature: number of nearby (in the same county) congregations in the same denomination, religious pluralism, and evangelical Protestant market share in the same county.

Our *market share* measure is based on the county-level RCMS data described above. For each of the 149 participating denominations, the RCMS researchers report the number of the denomination's adherents in each county. Adherents are the reported number of official members of a denomination plus the estimated number of children of those members for denominations that

[4] We did not use the denominationally-specific oversamples in our analyses.

[5] We are grateful to Cynthia Woolever for providing county location codes for the individual USCLS congregations.

[6] Tests of statistical significance for regression betas for our variables of interest led to the same decisions (significant vs. nonsignificant) as were reached using OLS regression.

do not have child membership (e.g., most Baptist denominations). Estimations of child adherents were done by the RCMS researchers and were made using official membership statistics and county-level age distribution information from the U.S. census. Using the adherent data we calculate the market share of a particular denomination in a particular county by dividing the number of adherents associated with that denomination by the total number of adherents from all denominations with congregations in the same county and multiplying by 100 to obtain the percent of all county adherents belonging to the denomination.

Some of the congregations in the USCLS sample belong to denominations that did not participate in the RCMS study and we thus could not determine market share values for these congregations. However, we were able to calculate market share percentages for 334 of the congregations. These 334 congregations belong to 20 different denominations including Catholics, conservative Protestants, and liberal Protestants.[7] Our full models include variables from the leader survey, which drops the final number of cases to 271.[8]

We calculated the *religious pluralism* of the county in which each congregation is located using the Herfindahl-based index of pluralism and the RCMS adherence figures for all the denominations in same county. (See Finke and Stark 1988; Finke, Guest, and Stark 1996; or Voas, Olson, and Crockett 2002 for a description of the pluralism index.) The pluralism index reflects differences both in the number of religious groups in an area and the evenness of the sizes of these groups. It equals zero when one group has a religious monopoly and approaches a value of one when there are many groups of the same size. Our use of the pluralism index does not suffer from the problems noted by Voas, Olson, and Crockett (2002) since none of the dependent variables in our regressions are closely related to overall measures of religious participation in an area.

We also include a measure of intradenominational competition by counting the *number of nearby congregations in the same denomination* (Olson and Sikkink 2004, Brewer, Jozefowicz, and Stonebraker 2006). Olson (2002) suggests that it might be a better measure of competition for adherents than market share since most real switching is likely to be between similar, rather than very different, religious organizations. The RCMS data report, for each participating denomination, how many congregations of each denomination are located in each county. Thus for each congregation in our data set belonging to a denomination that participated in the RCMS study, we are able to identify how many other congregations there are in the same county that belong to the same denomination that might be likely competitors for the same pool of potential adherents. We use the natural log of this variable to reduce its skew.

Stark and Finke (2004) suggest that religious competition can increase when congregations are faced with a religious market dominated by other religious groups that are especially vigorous in competing for adherents (such as is the case with the congregations they examine in Utah that face competition from Mormonism, a group known for its vigorous evangelism). Since few of the USCLS congregations that we examine in this analysis are located in areas of high Mormon concentration, we instead examine the effects of the log[9] of *evangelical market share* (the proportion of adherents in denominations that the RCMS classifies as "evangelical"). Both Perl and Olson (2000) and Brewer et al. (2006) find that greater conservative Protestant market share is associated with higher congregational per capita giving.

[7] The following 20 denominations are used in most analyses: Seventh Day Adventist, American Baptist Churches, Conservative Baptist Association of America, Southern Baptist Convention, Christian and Missionary Alliance, Disciples of Christ, Church of God (Anderson, IN), Church of the Nazarene, Episcopal Church, International Church of the Foursquare Gospel, Church of Jesus Christ of Latter Day Saints (Mormon), Evangelical Lutheran Church in America, Lutheran Church Missouri Synod, United Methodist Church, Assemblies of God, Presbyterian Church (USA), Presbyterian Church (not specified), Roman Catholic, Unitarian Universalist Association, and United Church of Christ.

[8] The missing data on the variables used to construct per capita giving bring the final *N* for Table 1 down to 247.

[9] We found that the log of evangelical market share had a stronger relationship to per capita giving than did the unlogged version of this variable.

Although we treat evangelical market share as a potential measure of religious competition, we note that Perl and Olson (2000) and Brewer et al. (2006) both interpret these results as "spillover" rather than competition effects. A spillover effect is one whereby, to use evangelicals as an example, the higher per capita giving of nearby evangelicals has a normative influence on the giving of people in nonevangelical congregations (perhaps from people who switched from evangelical congregations or via close friendships with nearby evangelicals). So while we recognize that nearby evangelical congregations could be associated with higher member commitment levels in other congregations via the effort mechanism, the association may also plausibly arise due to causes that do not involve heightened efforts by religious suppliers.

Measures of Effort

Our key dependent variables are the levels and types of efforts that religious suppliers (congregations and clergy) exert to meet the religious needs of people both inside and outside of the congregation. We are particularly interested in efforts made to recruit new members into the congregation since the arguments based on religious competition suggest that low market share forces religious groups to market themselves more vigorously in order to survive. We measure congregational outreach efforts using the following 14 items, derived from the congregational profile in the USCLS:

> Within the past 12 months has your congregation done any of the following to reach out to nonmembers? 1) Mailed or distributed newsletters, letters, or flyers; 2) Placed a paid ad in a newspaper or magazine; 3) Advertised on the radio or TV; 4) Placed a paid ad in the phone book or yellow pages; 5) Established or maintained a web site for the congregation; 6) Had an activity (fair, chili supper) to meet people in the neighborhood; 7) Conducted or used a survey of the community; 8) Encouraged people already in the congregation to invite a new person; 9) Tried to identify and contact people who recently moved into the area; 10) Sponsored or participated in an outreach service or other public event intended to bring people into your congregation; 11) Sent a letter or other material to people who visited your congregation; 12) Had someone from your congregation telephone people who visited your congregation; 13) Had someone from your congregation go to the home of people who visited your congregation; 14) Had a special committee to work on recruiting new members.

We constructed an index from these 14 items by performing a principal components analysis on a matrix of tetrachoric correlations.[10] Using factor analysis methods we then extract one component from the 14 variables that comprises approximately 34 percent of the total variance (eigenvalue of 4.76).[11] We standardized the resulting index to have a mean of zero and a standard deviation of one.

We also measured clergy work using the self-reported average number of hours each week that the religious leader works in the congregation.[12] We examined not only the total hours that clergy claim to work but also the amounts of time they claim to work on each of 13 specific tasks derived from the following survey item:

> Please estimate how many hours in a typical week you devote to each task listed below, including preparation where applicable: 1) Preaching (including sermon preparation); 2) Worship and sacramental leadership, including funerals and weddings; 3) Teaching people about the faith; 4) Teaching people for ministry and mission; 5) One-on-one time working to convert others to the faith; 6) Pastoral counseling and spiritual direction; 7) Visiting members and their families, including sick, shut-ins; 8) Visiting or calling on prospective members; 9) Administering the work of the congregation, including staff supervision; 10) Attending congregational board and committee

[10] We use tetrachoric, rather than Pearson's, correlation coefficients since tetrachoric correlations are more appropriate when the variables are dichotomous as is the case with these data.

[11] We also ran our final models using a simple additive index of the 14 recruitment effort indicators. The substantive results were unaltered.

[12] Self-reports that exceeded an average of 100 hours per week were truncated to a more plausible 100 hours (this altered less than 2 percent of cases).

meetings; 11) Thinking about and promoting a vision and goals for the congregation's future; 12) Involvement in denominational, interdenominational and interfaith affairs; 13) Involvement in community organizations and issues beyond the congregation

Whereas our first measure focuses on efforts to recruit new members, our measure of clergy work hours measures efforts targeted at both members and nonmembers. Perhaps more importantly, it clearly focuses on the efforts of leaders. These are the "entrepreneurs" in supply-side explanations that should be most responsive to the presence of religious competition. It is their livelihoods and reputations that are at stake if religious competition threatens to draw adherents away to other groups.

Control Variables

Our models include controls at both the congregational and the county level. For congregations, we control for congregational size (all the children and adults associated with congregation in any way, whether regular or only occasional attenders) as estimated by the key informant, the number of part-time and full-time staff a congregation employs, and a variety of social background characteristics of the congregation's attenders. We calculated these social background characteristics from the questionnaires completed by individual respondents (attenders) at each congregation. These measures include attenders' average income, their age distribution (percent less than 30 and percent over 65), percent white, and educational attainment (percent with no high school degree or equivalent and the percent with a college degree). At the county level we control for region, the natural log of the total county population, median family income, percent urban, and percent white.

Plan of Analysis

We separate our findings into two stages. First, we test the validity of our measure of market share. Since our claim is that religious market share has no association with the efforts of congregations and their leaders, we need to first be sure that such a result is not simply the product of having a poor measure of market share that has no strong correlations with any variable. Similarly, it might be claimed that we do not have enough cases (congregations) in our sample to detect statistically significant effects of market share. In order to test the validity of our measure of market share, we examine whether it has a negative relationship with per capita financial giving, a result that has been repeatedly found in most of the previous studies cited above. If our measure of market share has a statistically significant negative relationship with per member giving in the USCLS data even after introducing a host of statistical controls, then we can be confident that it is measuring market share in a way that is similar to what has been found by other studies and that the number of cases is not too small to detect statistically significant relationships.

In this first part of our analysis, our measure of per capita giving comes from two pieces of information given by the congregational informant (usually a pastor). The informant was asked to estimate the number of children and adults associated with the congregation in any way (including nonmembers and attendees with irregular participation). The informant was also asked to report the total annual congregational income from individuals' donations, dues, and contributions. To arrive at per capita giving, we simply divided total congregational income from congregants by the total number of individuals associated in any way with the congregation.

In the second, main, stage of our analysis we examine whether a congregation's market share has any effect on the activities of religious suppliers, namely, the number and types of outreach efforts of congregations to nonmembers and the number of hours that clergy claim to spend each week working to meet various types of needs both inside and outside of their congregations. We also examine whether other measures of religious competition (religious pluralism, number

of nearby congregations in the same denomination, and evangelical market share) are related to congregational and leader efforts.

RESULTS

Validity Tests

We begin by testing the validity of our measure of market share. Table 1 examines whether, as previous studies have shown, small market share congregations have higher per capita giving among the USCLS congregations. If market share is negatively associated with per capita giving in these data we can be confident that our measure of market share is similar to measures of market share used in other studies and that we have sufficient numbers of cases to detect statistically significant relationships between market share and other variables.

Table 1: OLS regression predicting per capita giving[ab]

	Model 1	Model 2	Model 3	Model 4	Model 5
Log of Market Share	−66.482**	−40.935*	−63.216*		
Other Measures of Competition					
Log of # congs in same denom			33.148		
Pluralism (1 – Herfindahl index)				171.110	
Log of evangelical market share					64.751+
Congregation					
1/Congregation size	7,175.855*	16,236.135**	15,740.9**	16,394.735**	21,433.574**
Average income		13.411**	13.295**	13.486**	12.458*
Percent white		−.274	−.579	.069	.346
Percent under age 30		3.743	4.045	3.002	1.408
Percent over age 65		1.087	1.298	.376	.154
Percent < HS degree		−2.529	−2.737	−3.184	−2.931
Percent college degree+		−.475	−.318	−.928	−.306
# Ordained staff (full time)		39.207**	40.218**	34.613*	33.435+
# Ordained staff (part time)		27.944	28.036	30.753	33.111
# Other staff (full time)		−5.559*	−5.591*	−5.761*	−4.883
# Other staff (part time)		3.161	3.122	3.203	1.419
Geographic Context					
Midwest[c]		−7.912	−11.827	−17.571	6.299
South[c]		90.256*	90.196*	80.326+	40.829
Northeast[c]		−4.010	−18.332	−3.145	63.557
Log of population		14.282	−10.962	21.781	20.384
Percent urban		.529	.702	.083	.779
Percent white		.065	.358	−.651	−1.381
Median family income		−2.966	−2.856	−2.225	−2.267
Denominational dummy control variables	xxx	xxx	xxx	xxx	xxx
Constant	549.075**	−111.368	124.451	−285.001	−349.509
N	247	247	247	247	200[d]
R^2	.38	.53	.53	.52	.50

+$p < .10$; *$p < .05$; **$p < .01$ (two-tailed test).

[a]Fixed effects by denomination, denominational dummy variables not shown.

[b]Due to heteroskedasticity, robust standard errors are used in all models.

[c]Reference group is West.

[d]Only nonevangelical congregations are included in the sample.

Per capita giving is the main dependent variable in Table 1. Because there are different expectations regarding giving across denominations (giving is much higher in conservative Protestant denominations and Catholic giving tends to be low), we estimate our models using fixed effects centered on each denomination's mean level of giving (that is, our OLS regressions include dummy variables for the denominational identity of each congregation). For reasons of space we do not show the betas for each of the 20 denominational dummy variables in Table 1 but indicate that we have included these variables by showing "XXX" in the row labeled "denominational dummy control variables." Fixed effect models allow us to estimate the variance in giving within and between denominations. Thus, the variables shown in the rest of the models can be thought of as explaining only the variance within denominations. In other words, we are not comparing small market share Catholic congregations with large market share conservative Protestant congregations. We are comparing only congregations with other congregations in the same denomination. In analyses not shown in Table 1, we find that approximately one-third of the variance in giving can be accounted for by the differences *between* different denominations. The remaining two-thirds of the variance in giving is associated with differences among congregations within the same denominations.

The most important independent variable in Table 1, the variable whose validity we are testing, is the log of each congregation's denominational market share. In a preliminary examination of scatterplots we found that there is a downward sloping, concave upward, curvilinear relationship when per capita giving (vertical axis) is plotted on market share (horizontal axis). Differences in lower values of market share have a larger impact on giving compared to the same unit differences in higher values of market share. In order to model this, we use the natural log of denominational market share as our independent variable. The inclusion of this variable in Model 1 accounts for nearly 10 percent of the variance in giving *within* denominations.

This is a moderate effect that has real-world consequences for the financial status of religious congregations. For example, calculations based on our estimates in Model 1 suggest that a low market share congregation (defined as the 10th percentile of the market share variable) will receive, on average, nearly $270 more per year for every individual associated with the congregation compared to a high market share congregation (defined as 19th percentile of the market share variable).

Following Firebaugh and Gibbs (1985), all of the models in Table 1 (in which the dependent variable is per capita giving) control for the *inverse* of congregation size rather than congregation size itself.[13]

Model 1 in Table 1 shows, consistent with previous research, that the log of denominational market share has a negative and statistically significant ($p < .01$) relationship with per capita giving after controlling for denominational identity and the inverse of congregational size.

Model 2 in Table 1 includes additional congregational and county-level variables that may partially explain the relationship between market share and per capita giving. These control variables explain an additional 10 percent of the total variance (approximately 15 percent of the variance within denominations). The county-level variables in Model 2 are all nonsignificant except for the dummy variable for location in a Southern census region (perhaps a spillover effect as discussed above). Individuals give more to their congregations in the South. Even with a full set of congregational and contextual control variables, the impact of market share on per capita giving is still statistically significant at the .05 level and suggests that we have both a valid measure of market share (similar to the measures used in previous research) and a sufficient number of cases to detect statistically significant effects of this variable.

[13] Firebaugh and Gibbs (1985) note that in order to correctly specify a model such as ours one needs to control for the inverse of the congregation size when doing regressions where the dependent variable (per capita giving in this case) is a ratio variable in which, in this case, the denominator used to calculate per capita giving is the size of the congregation.

Models 3 through 5 examine whether our other potential measures of competition are related to per capita giving. Compared with the robust and consistent relationship of market share to per capita giving, the previous research described above suggests that these last three measures have nonexistent, inconsistent, or weak relationships with per capita giving. Thus we are less confident that these last three regressions can serve as validity tests for these variables. The best we can expect is that our results match the results from previous research, that we find relationships where past research finds relationships, and that we find no relationships where past research finds no relationships.

Since competition for adherents may be more likely to come from nearby, very similar, congregations within the same denomination (intradenominational) as opposed to congregations in other denominations (interdenominational competition), Model 3 examines whether the natural log of the number of congregations in the same denomination in the same county is related to per capita giving. Without controlling for denominational market share, the number of congregations in the same denomination might simply be another, less accurate, measure of market share and could be expected to have and indeed, in analyses not shown here, does have a negative, rather than the predicted positive, relationship with per capita giving. However, when we statistically control market share as we have in Model 3, the beta for the logged number of congregations in the same denomination in the same county is positive, in the predicted direction, the direction found in Brewer, Jozefowicz, and Stonebraker (2006). Nevertheless, we find as Olson and Sikkink (2004) found, that the number of congregations is a statistically insignificant predictor of per capita giving when controls for member's average income and county-level census variables are added.[14]

Model 4 shows, as previous research has shown (e.g., Perl and Olson 2000), that the religious pluralism of the surrounding county has no effect on the per capita giving of congregations.

Model 5 shows results for the log of evangelical market share, a potential measure of competition from other vigorous groups in the area. As noted above, both Perl and Olson (2000) and Brewer, Jozefowicz, and Stonebraker (2006) find that greater conservative Protestant market share is associated with higher congregational per capita giving. We have excluded evangelical congregations from the cases analyzed in the regression in Model 5 to be sure that we are measuring the effect of competition from *other* religious groups, and not simply measuring market share twice for evangelical congregations.

Although the positive beta in Model 5 is consistent with the claim that external competition from evangelicals boosts commitment, the beta is statistically significant only at the .10 level. However, we note that, in analyses not shown here, when the regional dummy variables are removed from the regression in Model 5, the coefficient becomes statistically significant at the .05 level.

Taken together, Models 3 through 5 yield results similar enough to past results that if religious competition as measured by these variables actually does stimulate leader and congregational efforts, we should be able to detect these results in our analyses below.

More importantly for our purposes, the results shown in Model 2 of Table 1 give strong evidence that among the USCLS congregations examined here our measure of market share has the same negative and robust relationship with per capita giving that has been found in previous studies. In previous studies the existence of this negative relationship has been taken as evidence that small market share congregations face greater religious competition that forces these groups, especially their leaders, to respond with greater effort and creativity to meet the needs of adherents and potential adherents. Next we examine whether, in fact, this is what happens.

[14] Brewer, Jozefowicz, and Stonebraker (2006) find that number of county congregations in the same denomination is positively and significantly related to per capita giving but they control for no county-level contextual variables other than median household income and control for no direct measure of individual income. When similar variables are removed from our analysis, the measure of congregations in the same denomination becomes significant at the .10 level.

Predicting Recruitment Activity

We examine two ways that small market share congregations could be working harder. First, in Table 2 we ask whether low market share stimulates greater recruitment efforts by congregations as measured by our measure of recruitment activity. Later, in Table 3, we examine whether the clergy in small market share congregations work longer hours.

Table 2 finds little connection between market share and congregational recruitment efforts. The dependent variable for the regressions in Table 2 is the index of congregational recruitment efforts constructed (as described above) from the 14 questions about types of outreach activities that the congregation has undertaken in the past 12 months. As in Table 1, the regressions are fixed-effect models (using denominational dummy variables) centered on each denomination's

Table 2: OLS regression predicting 14-item congregational recruitment efforts scale[a]

	Model 1	Model 2	Model 3	Model 4	Model 5
Log of Market Share	−.088^{+}	−.031	.027		
Other Measures of Competition					
Log of # congs in same denom			−.083		
Pluralism (1 – Herfindahl index)				.142	
Log of evangelical market share					.036
Congregation					
Congregation size/100		.004	.004	.004	.006
Average income		.013	.012	.013	.001
Percent white		−.001	−.000	−.001	−.001
Percent under age 30		.008	.007	.008	−.001
Percent over age 65		−.002	−.002	−.002	−.004
Percent < HS degree		−.008	−.008	−.008	−.006
Percent college degree^{+}		.002	.002	.002	.006
# Ordained staff (full time)		.106*	.105*	.104*	.038
# Ordained staff (part time)		.085	.086	.088	.092
# Other staff (full time)		−.027**	−.026**	−.026**	−.026*
# Other staff (part time)		.011	.011	.011	.016
Geographic Context					
Midwest[b]		.156	.165	.151	.217
South[b]		.258^{+}	.260^{+}	.252^{+}	.285
Northeast[b]		.168	.200	.171	.203
Log of population		.065	.130	.072	.092
Percent urban		−.002	−.002	−.002	−.003
Percent white		−.000	−.001	−.001	−.002
Median family income		−.002	−.002	−.002	−.002
Denominational dummy control variables	xxx	xxx	xxx	xxx	xxx
Intercept	2.016**	.833	.256	.675	1.200
N	265	265	265	265	208[c]
R^2	.33	.44	.44	.44	.40

$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$ (two-tailed test).

[a]Fixed effects by denomination, denominational dummy variables not shown.

[b]Reference group is West.

[c]Only nonevangelical congregations are included in the sample.

mean scores on the dependent variable (the score on the outreach scale). Again, for reasons of space we do not show the betas for the 20 denominational dummy variables but simply use "XXX" in our models to indicate that we included statistical controls for denominational identity.

Although the coefficient for market share is statistically significant at the .10 level in Model 1, once congregational characteristics and county characteristics are included in the model the relationship becomes nonsignificant (Model 2). In particular, controlling for three somewhat related variables, none of which are individually statistically significant in Model 2 (attenders' average income, percent with no high school degree, and percent with a college degree), accounts for the spurious relationship found in Model 1. This is because market share tends to be lower in urban areas and because urban areas have higher median incomes and education. The higher income, more educated congregations in urban areas do more outreach, but this is not because they have smaller market share.

We wondered whether the failure to detect any effects of market share on outreach in Table 2 might arise if the relationship between market share and recruitment activity is not curvilinear (as is true for the relationship between market share and per capita giving). Thus we also reran the regression from Model 2 using an unlogged market share variable (analysis not shown). The results indicate no statistical relationship between market share and recruitment efforts.

In Models 3 through 5 we examine whether our other potential measures of religious competition fare any better. However, none of the coefficients for these variables reach statistical significance. It appears that if nearby congregations in the same denomination (Model 3), religious pluralism (Model 4), and evangelical market share (Model 5) are indicators of religious competition, such competition has no effect on the outreach efforts of congregations.

Our analyses raise the possibility that certain components of our composite measure of congregational outreach may still be related to market share, our chief variable of interest, even though the scale combining all 14 measures of outreach is not. To test for this possibility, we ran separate logistic regressions (not shown here) in which the independent variables were the same as those in Model 2 and the main dependent variable for each regression was one of the 14 dichotomous measures of whether a congregation had a particular type of outreach program. We also ran 14 regressions using the logged version of market share and 14 regressions using the unlogged measure.

Of these 28 logistic regressions the beta for market share was statistically significant at the .10 level in only three regressions, a level close to what we would expect by random chance. Moreover, in one of the three statistically significant results, the beta for market share was positive, not negative as predicted by religious economies model.[15] Taken together with the regressions in Table 2, the 28 logistic regressions suggest that a congregation's denominational market share has no clear or robust relationship to the number of outreach programs undertaken by a congregation.

We conducted similar sets of logistic regressions for each of our other three potential measures of religious competition (42 regressions altogether). Of the 42 regressions we found only one result that was in the predicted direction and statistically significant at the .05 level, again a result that is consistent with random chance. None of our measures of competition appears to be related to congregational outreach programs.

Predicting Clergy Work Hours

Religious leaders play an especially important role in the dominant versions of religious economies explanations. In particular, religious leaders who face greater competition cannot

[15] "Placing a paid ad in a telephone book" has a negative and statistically significant relationship ($p < .05$) both when using the logged and when using the unlogged versions of market share. Creating a community survey is actually more likely in high market share conditions, but only when the unlogged measure of market share is used.

be "lazy." Their livelihoods and reputations depend upon the continued support of religious adherents. In order to secure this support in the face of greater competition they need to work harder and more creatively at meeting the religious needs of adherents and potential adherents. Thus, if market share is an inverse measure of religious competition, one expects clergy to put forth more effort when their congregations have small market share.

We test this proposition in Table 3 where the dependent variable is the self-reported number of hours the primary clergy person reported working in a typical week for the congregation. As in Tables 1 and 2 the regressions are fixed-effects (dummy variable) models centered on each denomination's mean scores on the dependent variable (the hours worked by the clergy). Again, for reasons of space we do not show the dummy variables for each denomination but

Table 3: OLS regression predicting total self-reported weekly clergy work hours[a]

	Model 1	Model 2	Model 3	Model 4	Model 5
Log of Market Share	−1.628	−.672	2.792		
Other Measures of Competition					
Log of # congs in same denom			−4.975		
Pluralism (1 – Herfindahl index)				−.831	
Log of evangelical market share					−.825
Congregation					
Congregation size/100		−.194*	−.227**	−.202*	−.160+
Average income		.277	.235	.278	.381
Percent white		−.058	−.022	−.055	−.112
Percent under age 30		.537*	.498*	.544*	.509+
Percent over age 65		.243*	.218+	.236+	.286*
Percent < HS degree		.044	.059	.033	−.010
Percent college degree+		.079	.058	.080	.071
# Ordained staff (full time)		.593	.535	.553	1.529
# Ordained staff (part time)		2.000	2.032	2.052	1.327
# Other staff (full time)		.418+	.451+	.425+	.193
# Other staff (part time)		.301	.305	.294	.359
Geographic Context					
Midwest[b]		5.287	5.833+	5.107	6.188
South[b]		2.999	3.089	3.012	2.331
Northeast[b]		5.313	7.232+	4.940	4.223
Log of population		−1.037	2.830	−.946	−.597
Percent urban		.051	.018	.049	.117
Percent white		−.014	−.057	−.013	.075
Median family income		.244	.239	.250	.120
Denominational dummy control Variables	xxx	xxx	xxx	xxx	xxx
Intercept	51.977**	20.517	−13.971	19.285	10.923
N	265	265	265	265	208[c]
R^2	.12	.21	.22	.21	.21

$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$ (two-tailed test).

[a]Fixed effects by denomination, denominational dummy variables not shown.

[b]Reference group is West.

[c]Only nonevangelical congregations are included in the sample.

simply include an "XXX" in our model to indicate that we have controlled for denominational identity.

The betas for market share in Models 1 and 2 in Table 3 (with and without controls for congregational characteristics and geographic context) indicate that, even after controlling for a host of potentially confounding influences, we were unable to establish any link between the size of a congregation's denominational market share and clergy work hours. As before, we also ran Models 1 and 2 using an unlogged measure of market share and found no statistically significant results (analyses not shown). Likewise, Models 3 through 5 test our other potential measures of competition (number of congregations in the same denomination, religious pluralism, and evangelical market share) but reveal no relationship between these measures and the hours that clergy work.

Although total clergy work hours is unrelated to denominational market share, perhaps clergy in low market share congregations prioritize their time differently, spending more time serving congregants and attracting new members as opposed to private study and administrative tasks. In order to test for this possibility, we ran additional regressions in which the dependent variable for each regression was one of the 13 separate areas in which the clergy person might have spent his or her time. Additionally, we ran 13 regressions in which we used the logged market share of the congregation as the main independent variable (along with the control variables, including denomination, used in Table 3) and 13 more regressions in which the unlogged measure of market share was the main independent variable. Although, for reasons of space, we do not show the detailed results of all these regressions, we found that none of the 13 activities had a statistically significant relationship with market share (in either the logged or unlogged version). Differences in a congregation's denominational market share do not seem to influence the amounts of time that clergy work or the types of activity that clergy engage in.

For the sake of completeness we did similar sets of logistic regressions for our other three potential measures of competition (39 regressions altogether) and found that none of the three competition measures had a statistically significant relationship in the predicted direction with any of 13 separate measures of clergy time spent on specific activities. As with congregational outreach programs we find no evidence that any of the competition measures are related to clergy effort. In short, we find no support for the effort mechanism.

Alternative Explanations for Market Share

Though there could be alternative explanations for our results,[16] our analyses strongly suggest that there is no relationship between religious market share and the recruiting efforts of congregations, the number of hours that clergy work, or any one of the other additional measures of congregational effort that we examined. Unlike the claims of Avis, smaller market share congregations do not try harder.

What then explains the negative relationship of market share and per capita giving found in most previous research and in Table 1 above? The current literature suggests at least three

[16] Critics might suspect that there is a possibility of reverse causation, with the degree of effort altering a denomination's market share over time. Moreover, one could imagine a "feedback loop," wherein market share has a negative relationship with the effort mechanism, but leader effort has a positive relationship with market share. If these two influences are equal and opposing forces (something we think is unlikely), then it is possible that a nonrelationship between market share and effort in our models is artificial. In order to assess this possibility, we calculated the change in average congregational attendance over time from a series of variables reported in the USCLS. If leadership and congregational effort are influencing a denomination's market share, we would expect that this measure of percent change in average congregational attendance would be negatively correlated with market share (i.e., small market share congregations will be growing at a faster rate because of the effort mechanism). We find no relationship between percent change in attendance and market share, suggesting that a "feedback loop" is unlikely to explain our findings.

types of explanations that do not depend on the effort mechanism stimulating religious suppliers: identity activation, large market share free riding, and small market share membership turnover. In all three of these explanations, the locus of the main causal action occurs at the level of the individual churchgoer (consumer) rather than at the level of congregations, religious groups (religious suppliers), or the actions that their leaders take.

Identity activation occurs when members of religious groups (in this case minority religious groups) come to believe that they have identity interests that are not being served by alternative organizations or that their interests may be threatened by larger competing interests in society. They then give greater support to congregations and other religious organizations supporting their identity (e.g., summer camps, publications, etc.) as a way of furthering the interest of their shared identity (Olson 1993; Perl and Olson 2000). Members of small market share USCLS congregations may be aware that their identity is uncommon, or even stigmatized by the surrounding population. Catholics in places like Georgia experienced many years of discrimination. Even Lutherans in Alabama, or Southern Baptists in Connecticut, understand that they have an unusual religious identity, one that is not supported by nearby congregations belonging to other denominations. Moreover, with so few people sharing their religious identity, Lutherans in Alabama may realize that the local Lutheran congregation may not be able to sustain itself (and the services it provides) unless they give the congregation high levels of support (e.g., time and money). Likewise, to the extent that members of small market faiths desire social interaction with others sharing the same identity, they may experience a greater dependence on the religious organizations that provide settings where they can meet and interact with such persons. Thus, Rabinowitz, Kim, and Lazerwitz (1992) find that Jewish rates of synagogue membership, attendance, and Jewish organizational activitity are higher in areas with smaller numbers of Jews. Drawing on Fischer's subcultural theory (1982, 1984), they argue (see also Rabinowitz, Lazerwitz, and Kim 1995) that in areas such as the New York metropolitan area where there are many Jews, Jews can interact with other Jews in their daily round of interactions, but in smaller areas with fewer Jews, the synagogue may be the only place where they can meet other Jews.

It is important to note that identity activation arguments are not primarily supply-side, or effort-based, arguments in which religious leaders (suppliers) respond to religious competition to market their faiths more vigorously. Stark and Finke (2000) and Stark and Iannaccone (1996) attempt to seamlessly incorporate identity activation arguments such as these to help explain instances where (contrary to supply-side, competition-based, arguments) monopoly faiths have high member commitment levels as in Quebec until the 1960s and Poland under communism. Finke and Stark (e.g., 2003:103) claim that in such cases "conflict" is merely "substituting for competition." But identity activation is primarily[17] a *demand-side* argument in which the perceived threat to a group's interests sparks a higher demand for the religious group and its benefits among the group's members. It seems unlikely, for example, that high levels of Catholic mass attendance in Poland under communism were due to innovative priests responding to conflict from communist authorities by engaging in more active recruiting of Catholics or by providing a broader variety of masses to attract more adherents. Rather, Polish Catholics were aware that their interests were threatened by the communist state. They turned to Catholicism (higher demand) because it was the main organizational vehicle available outside the state to represent their identity and interests. For many Poles, participating in Catholic mass was a way to display one's Polish identity and one's resistance to communism. After the fall of communism the threat dissipated,

[17] We recognize, of course, that religious leaders can also create demand for the religious group by telling their followers that their religious and/or identity interests are threatened in ways that can only be protected by supporting the religious group.

the demand for the Catholic Church to represent Polish identity interests declined, and mass attendance fell (Muller 2007).

Brewer, Jozefowicz, and Stonebraker (2006) propose a second mechanism, large market share free riding, through which market share could be related to member commitment levels without involving the actions or efforts of religious suppliers. They suggest (2006:398) that "people who want the benefit of a church affiliation without contributing to its mission may be drawn to the more popular denominations in their region." The more popular denominations offer greater potential for social acceptance and access to useful social connections than do small market share congregations. These free riding attenders are motivated more by the nonreligious than the religious benefits of participation. Thus, majority faiths might tend to attract lots of low commitment members who want to enjoy the benefits of participation without contributing much time or money. If large market share congregations attract more low commitment members, it could account for the negative relationship of market share and per capita giving.

Olson (2008) identifies a third mechanism that does not require the involvement or efforts of religious suppliers, small market share turnover rates. Drawing on arguments by Blau (1977), he first demonstrates that small market share congregations have much higher membership turnover rates. This is because close social ties (e.g., recommendations of close friends, intermarriage) are important avenues through which many people join particular religious groups and through which they may leave to join other groups. Because members of small market faiths have a larger proportion of their close personal social ties with nonmembers (Blau 1977; Blum 1985), small market share congregations experience much higher percentages of members leaving and joining each year.

Counterintuitively, the higher membership turnover rates of smaller market share congregations translate into higher per capita giving and higher attendance rates among current members who have not left. Olson (2008) argues that, all else being equal, it is the least committed who tend to leave first and the most committed among the potential joiners who join first. Thus, over time higher turnover rates tend to filter the composition of the membership toward more committed members. He finds that a congregation's membership turnover rate is one of the best predictors of current per member giving and attendance rates and accounts for a significant portion of the relationship of these variables with market share. In our own cursory analysis of the USCLS data we found evidence of these same processes.[18]

We doubt that any one of these alternative explanations accounts for the entire effect of market share on member commitment levels. These processes may well work in harmony with one another and with other potential explanations. Our point here is to suggest that even though the effort mechanism appears to account for no part of the relationship between market share and member commitment levels, there are at least three plausible mechanisms that can explain this relationship without recourse to notions of religious competition or the actions of religious suppliers.

[18] The USCLS attender survey asks attenders how long they have been attending their congregation. For each congregation we calculated the percent of attenders who have attended for less than one year. (We have no simple measure of the percent who have left a congregation in a year.) Controlling for congregational size and denominational identity dummy variables we find a partial correlation of $r = -.1435$ ($p = .031$) between the natural log of market share and the percent attending less than one year. Again, controlling for inverse size and denominational dummies, we find a partial correlation of $r = .1912$ ($p = .004$) between the percent attending for less than one year and overall per capita giving. When we add the variable measuring percent of new attenders within the past year to Model 2 of Table 2, we can say that for every percent increase of new members, the per capita giving goes up $7.48 annually. So a 90th percentile congregation would receive $117.69 more per man, woman, and child compared to a 10th percentile congregation on the percent new attender variable.

Discussion

Contrary to a central claim of the dominant version of the religious economies model, we find no evidence for the "effort mechanism." We think it unlikely that competition from other religious groups stimulates already existing U.S. religious groups and their leaders to work harder to increase the recruitment of new members or increase commitment among current members. We also suspect that future research done *within*[19] other countries will find similar results when the definition of "competition" is restricted to the types of competition that normally occur in economic markets and is not expanded to include "conflict" of the types Stark and Finke (2000) discuss with regard to Poland under communism.

Note that we are not claiming that the efforts of religious leaders and congregations are unrelated to religious participation and commitment (the second and third steps in the causal chain implied by the effort mechanism). All else being equal, religious leaders who, for whatever reason, do more to market their faith will probably have followers that are more numerous and more committed. We are only claiming that variations in supplier efforts arise for reasons (e.g., theology, religious vision, personal ambition, etc.) that have little to do with religious competition.

One potential objection to our conclusions relates to an objection that Finke and Stark (e.g., Finke and Stark 1998, 2003:103) have raised in response to previous criticisms that pluralism was sometimes not related to measures of religious participation or commitment in U.S. data. They claim that there is a ceiling effect for pluralism, and by implication, for religious competition. According to this argument, the most important differences are between no religious competition and some competition. Above a certain level, additional religious competition matters little. This claim seems to be based on a misinterpretation of data from New York State in 1865 (Finke, Guest, and Stark 1996:210). A scatterplot of the same data can be found in Voas, Olson, and Crockett (2002:219) and shows no ceiling effect. But for the sake of argument, suppose that the entire U.S. religious marketplace is already so competitive that additional competition from variations in market share makes no difference. In that case it would not be surprising that we find no relationship between market share and the actions of the congregations and ministers in the USCLS congregations studied here. However, if one discounts our findings on this basis, then one must also discount previous interpretations of most of the previous research on market share (e.g., Stark and McCann 1993). Much of this research is also based on U.S. data where religious competition is, according to this argument, far above the ceiling where religious suppliers would be responding to slight variations in competition. If so, religious competition cannot be used to explain why small market share congregations in the United States have higher commitment levels, the same point we are trying to make in this article.

A second objection to our conclusions is that other research, namely, Stark (1998), has already shown a link between market share and the actions of religious suppliers in the United States. Specifically, Stark (1998) uses measures of the rates that lay Catholics take on leadership roles in the Catholic Church (e.g., the deacon rate, the female religious leadership rate, and the unordained leadership rate) as indicators of Catholic "innovation." He finds that these rates are higher in areas of the United States where Catholic market share is lower. He views these results as an example of religious suppliers (the Catholic Church in this case) being more willing to innovate in areas where they face the greatest competition from other religious groups (in areas of low market share). We disagree. We think that variables such as the unordained leadership rate are

[19] International comparisons of market share and effort levels for particular religious groups and leaders would need to control for additional, national-level, variables and account for the fact that most religious leaders are drawn from the group's national membership, which, as we already know, are more committed when a group's national-level market share is smaller.

best viewed not as indicators of the response of religious suppliers (the second of the three steps in the causal chain implied by the effort mechanism), but as measures of member commitment levels (the third step, the dependent variable). That is, the relationship of the *unordained* leadership rate to market share should be viewed as further evidence that member commitment levels are higher in areas of low market share, the same interpretation that Stark and McCann (1993) and Stark (1998) give to the higher *ordination* rates of young men living in areas of low Catholic market share.

If we are correct that the effort mechanism does not work as claimed, how does it alter the more general claim that religious competition boosts religious participation and commitment? First, the lack of supporting evidence for the effort mechanism undermines an important piece of evidence supporting the claim that religious competition boosts participation. Up to now the robust and quite consistent negative correlation between market share and member commitment levels found across a wide range of data sources has stood as the least questioned, most supportive evidence for the general claim that religious competition boosts religious participation and commitment. It now appears that this correlation cannot be explained by a stimulating effect of religious competition upon the actions of religious suppliers and should no longer be cited as evidence that religious competition raises commitment levels.

Second, our results suggest that any positive effects of religious competition on religious participation and commitment most likely arise from processes associated with the demand matching mechanism, the notion that rates and levels of religious participation increase depending on how well the supply of religious groups matches the diversity of religious demand in a population. Tests of the demand matching mechanism would include studies such as those that evaluate the effects of the state regulation and subsidy of religion and future tests of the effects of religious pluralism that avoid the problems noted in Voas, Olson, and Crockett (2002). Future tests of the demand matching mechanism will also need to develop better methods to measure the supply of religion separately from the demand for religion (a topic that goes beyond the scope of this article). Our results do not bear on the demand matching mechanism.

Finally, our results suggest that one whole set of meanings commonly associated with the term "competitive," namely, that greater competition provides incentives for self-improvement among competitors, may not apply to suppliers in religious markets. We suspect that congregations, religious groups, and religious leaders most often are not even aware of membership gains made by other nearby congregations and groups. We also suspect that when they are aware, they most often do not view such gains as a direct threat to their own well-being, and when they do perceive a threat, they most often make few changes in their behavior as a result. Unlike businesses that may quickly lower prices or improve quality in the face of strong competition, most existing religious organizations seem comparatively slow to change, driven more by custom, habit, and theological tradition, than by an immediate concern for membership growth or per capita giving. Our results suggest that religious competition does not generally motivate currently existing congregations to work harder at recruiting new members.

If true, then what accounts for the fairly high rates of religious innovation in the relatively unregulated markets such as the United States? We suspect that when religious competition motivates religious suppliers to engage in religious innovation, it less often involves change among *existing* religious groups and more often involves the creation of totally new congregations, new religious groups (e.g., the Vineyard), or a major change in the leadership of currently existing congregations. Such changes are probably less often a response to felt competition from other groups than a recognition of some perceived but unmet need among potential attenders. If so, such changes have less to do with the effort mechanism and more to do with the demand matching component of religious competition theories and might be better understood using ecological-biological models. That is, religious change might be less the result of changes within existing religious groups than the result of the creation of whole new religious species that evolve to take advantage of new niches of unmet religious demand.

References

Blau, Peter M. 1977. *Inequality and heterogeneity: A primitive theory of social structure*. New York: Free Press.

Blum, Terry C. 1985. Structural constraints on interpersonal relations: A test of Blau's macrosociological theory. *American Journal of Sociology* 91(3):511–21.

Brewer, Stephanie M., James J. Jozefowicz, and Robert J. Stonebraker. 2006. Religious free riders: The impact of market share. *Journal for the Scientific Study of Religion* 45(3):389–96.

Chaves, Mark, and Philip S. Gorski. 2001. Religious pluralism and religious participation. *Annual Review of Sociology* 27:261–81.

Finke, Roger, Avery M. Guest, and Rodney Stark. 1996. Mobilizing local religious markets: Religious pluralism in the empire state, 1855 to 1865. *American Sociological Review* 61(2):203–18.

Finke, Roger, and Rodney Stark. 1988. Religious economies and sacred canopies: Religious mobilization in American cities, 1906. *American Sociological Review* 53(1):41–49.

——. 1998. Reply to Olson: Religious choice and competition. *American Sociological Review* 63(4):761–66.

——. 2003. The dynamics of religious economies. In *Handbook of the sociology of religion*, edited by Michele Dillon, pp. 96–109. New York: Cambridge University Press.

Firebaugh, Glenn, and Jack P. Gibbs. 1985. A user's guide to ratio variables. *American Sociological Review* 50(5): 713–22.

Fischer, Claude. 1982. *To dwell among friends: Personal networks in town and city*. Chicago, IL: University of Chicago Press.

——. 1984. *The urban experience*. New York: Harcourt Brace Jovanovich.

Koçak, Özgecan, and Glenn R. Carroll. 2008. Growing church organizations in diverse U.S. communities, 1890–1926. *American Journal of Sociology* 113(5):1272–1315.

McCleary, Rachel M., and Robert J. Barro. 2006a. Religion and economy. *Journal of Economic Perspectives* 20(2):49–72.

——. 2006b. Religion and political economy in an international panel. *Journal for the Scientific Study of Religion* 45(2):149–75.

Montgomery, James D. 2003. A formalization and test of the religious economies model. *American Sociological Review* 68(5):782–809.

Müller, Olaf. 2007. Religion in central and eastern Europe: Was there a re-awakening after the breakdown of communism? In *The role of religion in modern societies*, edited by Detlef Pollack and Daniel V. A. Olson, pp. 63–92. New York: Routledge.

Norris, Pippa, and Ronald Inglehart. 2004. *Sacred and secular: Religion and politics worldwide*. New York: Cambridge University Press.

Olson, Daniel V. A. 1993. Fellowship ties and the transmission of religious identity. In *Beyond establishment: Protestant identity in a post-Protestant age*, edited by Jackson W. Carroll and Wade Clark Roof, pp. 32–53. Louisville, KY: Westminster/John Knox Press.

——. 2002. Competing notions of religious competition and conflict in theories of religious economies. In *Sacred canopies: Sacred markets essays on religious markets & religious pluralism*, edited by Ted Jelen, pp. 133–65. Lanham, MD: Roman & Littlefield.

——. 2008. Why do small religious groups have more committed members? *Review of Religious Research* 49(4): 353–78.

Olson, Daniel V. A., and David Sikkink. 2004. Religious competition and faithful remnant: Two ways that religious markets affect local congregations. Paper presented at the annual meeting of the Society for the Scientific Study of Religion, October 21–24, Kansas City, MO.

Perl, Paul, and Daniel V. A. Olson. 2000. Religious market share and intensity of church involvement in five denominations. *Journal for the Scientific Study of Religion* 39(1):12–31.

Peterson, Scot M. 2009. Rational choice, religion, and the marketplace: Where does Adam Smith fit in? *Journal for the Scientific Study of Religion* 48(1):185–92.

Phillips, Rick. 1998. Religious market share and Mormon church activity. *Sociology of Religion* 59(2):117–30.

Rabinowitz, Jonathan, Israel Kim, and Bernard Lazerwitz. 1992. Metropolitan size and participation in religio-ethnic communities. *Journal for the Scientific Study of Religion* 31(3):339–45.

Rabinowitz, Jonathan, Bernard Lazerwitz, and Israel Kim. 1995. Changes in the influence of Jewish community size on primary group, religious, and Jewish communal involvement—1971 and 1990. *Sociology of Religion* 56(4):417–32.

Stark, Rodney. 1992. Do Catholic societies really exist? *Rationality and Society* 4(3):261–71.

——. 1998. Catholic contexts: Competition, commitment, and innovation. *Review of Religious Research* 39(2):197–208.

Stark, Rodney, and Roger Finke. 2000. *Acts of faith: Explaining the human side of religion*. Los Angeles, CA: University of California Press.

——. 2004. Religions in context: The response of non-Mormon faiths in Utah. *Review of Religious Research* 45(3):293–98.

Stark, Rodney, and Laurence R. Iannaccone. 1996. Response to Lechner: Recent religious declines in Quebec, Poland, and the Netherlands: A theory vindicated. *Journal for the Scientific Study of Religion* 35(3):265–71.

Stark, Rodney, and James C. McCann. 1993. Market forces and Catholic commitment: Exploring the new paradigm. *Journal for the Scientific Study of Religion* 32(2):111–24.

Voas, David, Daniel V. A. Olson, and Alasdair Crockett. 2002. Religious pluralism and participation: Why previous research is wrong. *American Sociological Review* 67(2):212–30.

Woolever, Cynthia, and Deborah Bruce. 2004. *Beyond the ordinary: Ten strengths of U.S. congregations*. Louisville, KY: Westminster/John Knox Press.

Zaleski, Peter A., and Charles E. Zech. 1995. The effect of religious market competition on church giving. *Review of Social Economy* 53(3):350–67.