Testing the Strictness Thesis and Competing Theories of Congregational Growth

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Building off of Dean Kelley’s and Laurence Iannaccone’s earlier work, we develop a path model of the strictness thesis that investigates and compares how congregational strictness, evangelical theology, demographic characteristics, and denominational identity variously contribute to congregational growth and decline. Using the U.S. Congregational Life Survey (2001), we test this model at the congregational level and find significant support for the mechanisms at the core of both Kelley’s and Iannaccone’s versions of the strictness thesis, particularly that even after controlling for the other dynamics mentioned, congregational strictness has both an indirect and a direct positive effect on congregational growth. We also find, however, that evangelical theology, fertility, and denominational identity all play important roles in the prediction of growth, leading us to assert our integrated model as a new and more fully robust understanding of congregational growth and decline.

INTRODUCTION

In 1972 Dean Kelley proposed the original strictness thesis as an explanation for his claim that the 1960s had seen a dramatic shift in the growth and decline trajectories of numerous denominations within American Protestantism. Kelley marshaled evidence that suggested that the majority of long-growing, mainline liberal churches were now either stagnating or declining, while quite unexpectedly, many conservative and evangelical churches were actually increasing in size. Contrary to the prevailing sociological assumptions of secularization and modernization, Kelley argued that parishioners are not, in fact, attracted to the inclusivism and tolerance provided by liberal groups and that, instead, they long for a robust sense of meaning that can only be found in high-expectation, high-commitment, and necessarily conservative religion. Building on church-sect theory (Johnson 1957, 1963, 1971; Troeltsch 1912/1931; Weber 1922/1963), Kelley focused on the central role of religious strictness, which he characterized according to the ideological themes of “absolutism,” “fanaticism,” and “conformity”—the last of which he asserted was most visibly expressed through parishioner lifestyle demands such as various regulations and prohibitions regarding food, drink, entertainment, sexuality, and dress. According to Kelley, then, much of the growth of conservative and evangelical religion could be understood by considering the essential function that religious strictness plays as the inevitable “consequence and evidence of the seriousness of meaning” (1972:174), the key link in a causal chain where the quest for meaning produces religious strictness, religious strictness produces congregational strength, and congregational strength produces congregational growth.

Kelley’s thesis found immediate appreciation among conservative denominational executives and various authors associated with the church growth movement (Hunter 1979; McGavran 1970; Schaller 1979; Wagner 1977), but its reception among academic sociologists was decidedly less

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favorable (Bibby 1978; Bibby and Brinkerhoff 1983; Bouma 1979; Hoge and Roozen 1979; McKinney and Hoge 1983; Perry and Hoge 1981; Roozen and Hadaway 1993). In particular, two basic critiques emerged from this latter literature. First, many studies attempted to demonstrate that instead of conservative and evangelical growth being produced by institutional factors such as strictness, growth is better explained by demographic factors such as higher than average birthrates (see Hout, Greeley, and Wilde 2001), suburbanization, and regional patterns of population shift. Second, empirical relationships aside, many sociologists discounted Kelley’s strictness thesis due to its general ambiguity and its only minimally elaborated theoretical processes. This criticism was perhaps most pointedly voiced by David Roozen and Kirk Hadaway (1993), who strongly suspected that any correlation between strictness and growth is spurious. Alternatively, they argued that the growth of conservative and evangelical congregations is primarily caused by such groups’ high “ideological commitment to evangelistic action” (Hadaway and Roozen 1993a:42), which manifests itself in that “[o]utreach seems to be the single most important action a church can take if it wants to grow” (Hadaway and Roozen 1993b:129).

Hence, it seems that the strictness thesis would have been relegated to theoretical history had it not been for its timely redeployment by Laurence Iannaccone and his controversial 1994 article “Why Strict Churches Are Strong.” In his text, Iannaccone reframed the strictness thesis within the economic language of rational choice theory (Becker 1964, 1976, 1981; Iannaccone 1984, 1988, 1990, 1991, 1992; Smith 1776/2008) and its sociological predecessor, exchange theory (Blau 1964; Emerson 1962; Homans 1958). Thus, working according to the schema of the “religious marketplace,” Iannaccone introduced the counterintuitive idea that although strict congregations produce higher felt costs for their parishioners, these costs are more than offset by corresponding increases in parishioner perceptions of the benefits of such congregations, thus raising the overall benefit to cost ratio that is the essence of a congregation’s market value. Iannaccone defended this claim by explaining that religious strictness is institutionally desirable because its imposition discourages the participation of all but the most committed persons and, consequently, mitigates the standard free rider problem of low-commitment, low-contribution parishioners. In turn, this selection effect maximizes both a congregation’s benefits and resultant market value by reducing the division of a congregation’s corporately produced resources. Moreover, citing game theory (Von Neumann and Morgenstern 1944), Iannaccone asserted that the removal of free riders has the further effect of encouraging increased participation among those who remain, which recursively leads to an even further augmentation in benefits and thus market value. Throughout his article, then, Iannaccone variously and somewhat indefinitely termed this notion of value as “attractiveness,” “net benefit,” and “strength,” and together he used these similar (perhaps conflated) concepts both to explicitly justify the appeal of strict congregations and to implicitly demystify the “success” of conservative and evangelical churches. Unfortunately, though, the only empirical findings Iannaccone provided had little to do with demonstrating “success,” and while Iannaccone did show significant positive relationships between general denominational strictness and corresponding measures of average parishioner participation and conservatism, he was soon and sharply criticized for implying more than his evidence warranted (Marwell 1996).

However, in both response to and anticipation of these criticisms, Iannaccone subsequently collaborated with Daniel Olson and Rodney Stark (Iannaccone, Olson, and Stark 1995) to elaborate and clarify the relationships and distinctions between strictness, strength, value, and growth. Drawing on resource mobilization theory (McAdam, McCarthy, and Zald 1996; McCarthy and Zald 1977), they further specified Iannaccone’s (1994) original argument by explaining that strictness leads to growth primarily because the reduction of free riders leads not just to congregational strength but indeed to a “surplus” of strength and resources, particularly in the forms of the financial donations and volunteer time that parishioners give to their congregation. They explained that these surplus resources can then be used for developing both value-enhancing programs, such as adult and children’s ministries, as well as value-advertising programs, such as recruiting initiatives and evangelizing campaigns. Together, this increase in market value coupled with this
increase in the general market awareness of such value form the causal mechanisms by which strictness leads to strength, value, and recruiting, and ultimately to growth.

This time Iannaccone, Olson, and Stark (1995) followed up their growth prognostications by empirically demonstrating significant positive relationships between denominational membership growth and corresponding measures both of average parishioner participation and financial giving as well as of general denominational strictness. Yet, while this latest instantiation of the strictness thesis certainly garnered support, its overall reception remained contentious with detractors such as Kirk Hadaway and Penny Marler (1996) focusing on two basic problems. The first of these was methodological and centered around the apparent incongruence between Iannaccone, Olson, and Stark’s theoretical modeling, which were exclusively conceived of in terms of congregational processes, and their empirical data, which were primarily derived from denominational patterns. In particular, such incongruence had the unfortunate effect of masking the distinction between denominations’ mean rates of congregational growth (or decline) and the quite independent reality that denominations regularly start new and close old congregations, which, of course, also affects overall denominational growth (or decline). Beyond this, though, the second and more substantive problem with this version of the strictness thesis was that it, like all of its predecessors, still failed to address the potentiality of the much more parsimonious hypothesis that conservative and evangelical growth is simply the direct result of evangelical theology—a theology that tends to produce both religious strictness and effectual proselytizing fervor.

In the 15 years since Iannaccone and colleagues respecified the strictness thesis, there have been several empirical inquiries that have partially evaluated its various aspects and assumptions. Six of these are notable. In 1997, Joseph Tamney and Stephen Johnson utilized a survey of Muncie, Indiana residents to study the connection between congregational free riding and the production of corporate benefits. While finding “some evidence consistent with the idea that church success is negatively related to the number of free-riders...the results were not statistically significant” (1997:104). A year later in 1998, Tamney and Johnson published a follow-up study using the same data in which they attempted to assess the local “popularity” of strictness versus authoritativeness. They found that among the parishioners studied, the latter was clearly a more accepted idea. Next, in 2001 Daniel Olson and Paul Perl evaluated a data set of 625 congregations from five denominations in coming to the conclusion that while within denominations strictness is not related to parishioner commitment, across denominations “strictness is strongly correlated with several important measures of member commitment levels” (2001:757). Olson and Perl cautioned, however, that these apparent effects of strictness may be spurious and that such correlations may actually be caused either by distinctions in denominational theology or some other “unmeasured characteristic of denominational difference” (2001:762). Returning to Muncie, Indiana, Tamney et al. found that “strict rules [are] positively related to growth among working-class congregations, but negatively related to growth among middle-class congregations” (2003:363). Most recently then, in 2005 Tamney published qualitative research on two growing churches from the same city that found no evidence in support of the strictness thesis, while Olson and Perl also authored another piece, which found that “some combination of strict rules and/or conservative theology appears to systematically limit the proportion of free- and cheap-riding members” (2005:123).

Finally, to conclude our literature review, we note that concomitant with these studies of particular aspects of the strictness thesis, it is also worth identifying three research contributions that have addressed the broader context of this area of inquiry. First, Michael Hout, Andrew Greeley, and Melissa Wilde’s article on “The Demographic Imperative in Religious Change in the United States” (2001) investigated potential causes of the growth of religious conservatism in America during the second half of the 20th century. Specifically, they considered explanations based on: (1) demographic factors such as rates of birth and of intermarriage among religious traditions; (2) institutional factors such as organizational and structural distinctions among religious groups; (3) ideological factors such as religious and political beliefs; and (4) identity factors such
as those suggested by Christian Smith’s subcultural attachment theory (1998). Ultimately, they concluded that the growth of religious conservatism is best explained by “higher fertility and earlier childbearing among women from conservative denominations” (2001:468). Second, and more directly applicable to congregational-level studies such as ours, two recent articles have engaged rational choice theory and organizational commitment language in examining predictors of congregational giving. In 2006, Roger Finke, Matt Bahr, and Christopher Scheitle found that “congregational beliefs, requirements, and networks serve to mutually support each other in generating an exclusiveness that produces a high level of giving” (2006:620). Similarly, in 2008 Scheitle and Finke concluded that “high organizational demands not only serve to select members who are the most willing to give, they generate organizational properties that increase the contributions of those who join” (2008:815).

**MODELS AND HYPOTHESES**

Based on this review of the literature, we identify two essential versions of the strictness thesis and three distinct conceptual critiques. These are summarized in Figure 1, which represents our best interpretations of the major claims that have been made. Accordingly, we suggest that Kelley’s original strictness thesis posited a causal pathway from meaning to strictness to strength to growth.¹ Iannaccone, Olson, and Stark (1995) later offered their rational choice version of the thesis, which begins with strictness creating strength, followed by strength producing value and recruiting, both of which lastly lead to growth. Shifting now to the critiques, the first of these is the demographic critique, which emerged both from early responses to Kelley as well as later inquiries within the last decade. Earlier studies tended to emphasize alternative explanations for conservative and evangelical growth such as higher than average birthrates as well as favorable patterns of population shift, particularly the movement of persons toward metropolitan suburbs, where it was assumed most conservative and evangelical churches were located. More recent research, though, has also raised questions regarding how social and economic class issues may intervene with or potentially obstruct the internal processes of the strictness thesis (Tamney et al. 2003). The second critique is the evangelical theology critique, which summarizes the perspective

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¹ Some persons might disagree with this interpretation of Kelley’s strictness thesis, arguing instead that Kelley was proposing that strictness produces both strength and meaning and that meaning then produces growth. Given the ambiguity of Kelley’s causal thinking, however, it is no surprise that there are alternative views. Ultimately, though, we follow Iannaccone (1994) in focusing on the strictness to strength to growth pathway. Also note our later discussion of Kelley in the concluding section of the article.
of both Roozen and Hadaway (1993) and Hadaway and Marler (1996) that it is theology that drives recruiting, which in turn results in growth. Finally, the third critique is the denominational identity critique, which, as alluded to by Olson and Perl (2001), introduces the possibility that there may be unconsidered aspects of denominational identity that account for congregational growth and that might mitigate any relationship between strictness and growth.

From these versions and critiques of the strictness thesis, we therefore propose the integrated path model found in Figure 2. While not illustrating controls for demographic characteristics and denominational identity, this figure shows our amalgamation of the rational choice version of the strictness thesis with the evangelical theology critique. Specifically, we begin with the former’s strictness to strength to value/recruiting to growth chain and then construct additional pathways in order to consider any potential direct effects that strictness may have on subsequent constructs. Similarly, we add a direct pathway between strength and growth; and, last, we integrate the evangelical theology critique by similarly modeling all of the potential effects that evangelical theology might have on any of the other constructs. It should be noted here that our model does

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2 While we follow Roozen and Hadaway (1993) and Hadaway and Marler (1996) in portraying the evangelical theology critique as theoretically oppositional to Iannaccone’s rational choice framing of the strictness thesis, it is worth pointing out that the evangelical theology to recruiting to growth chain can also be modeled according to rational choice theory. For instance, both Stark and Finke (2000) and Stark and Bainbridge (1985) have made rational choice arguments that essentially suggest that people who are highly committed to evangelical theology—which typically proposes eternal heavenly rewards commensurate with one’s degree of obedience to God—are likely to be quite (rationally) motivated to participate in evangelistic action as God purportedly commands. Yet, because such an explanatory approach is largely antithetical to the arguments posited by Roozen, Hadaway, and Marler—arguments that are based more on culture and socialization—we, therefore, avoid trying to subsume the evangelical theology critique under the same rubric as the rational choice arguments offered by Iannaccone.
not explicitly address Kelley’s concept of meaning. This reflects two considerations: first, our desire to circumvent the ambiguity of Kelley’s original strictness thesis through focusing on Iannaccone and colleagues’ much more explicitly specified version; and, second, our conclusion that the essence of Kelley’s notion of meaning has to do with persons having and/or seeking a totalizing and purposive worldview, which we judge to be substantially included within the more particular construct of evangelical theology.

Finally, Figure 2 also serves to demonstrate our hypotheses, namely, that when controlling for demographics characteristics, denominational identity, and preceding model variables, we predict that: (1) Evangelical Theology will be significantly and positively related to Congregational Strictness; (2) both Evangelical Theology and Congregational Strictness will be significantly and positively related to Congregational Strength; (3) Congregational Strength will be significantly and positively related to both Parishioner Recruiting Activity and Parishioner Perception of Value; (4) both Parishioner Recruiting Activity and Parishioner Perception of Value will be significantly and positively related to Congregational Growth; and (5) all other relationships will be nonsignificant.

METHODS

Data Sources

As has already been suggested, a prime reason that the strictness thesis has proved so controversial is that its ideal empirical assessment has been slow in forthcoming. The denominational-level data used by Iannaccone (1994) and Iannaccone, Olson, and Stark (1995) simply did not address the congregational mechanisms at the core of the strictness thesis. Alternatively, studies that have used congregational-level data have tended to focus on congregations either within particular geographic areas or within only one or a few denominations. These latter studies are especially problematic, for as Iannaccone (1996) pointed out and as Olson and Perl (2001) later confirmed, analyses of strictness that are limited to only one or a few denominations are less likely to detect the potential effects of strictness because, being an aspect (or consequence) of denominational identity, strictness may not differ considerably within denominations but may vary substantially between denominations. Thus, in order to provide adequate assessment, research on the strictness thesis needs to evaluate data that are randomly drawn both from many congregations and from many denominations. However, at the same time, we note that an overreliance on the assumption that denominations have internally uniform levels of strictness poses its own problems. For instance, Iannaccone’s (1994) and Iannaccone, Olson, and Stark’s (1995) decision to measure strictness solely through denominational comparisons as judged by a panel of “outside experts” not only introduced questions of measurement validity (see Hadaway and Marler 1996:221), but obviously failed to account for any potential (even if unexpected) variation of congregational strictness within particular denominations. Therefore, when considering all of these issues together, we find that, unfortunately, none of the extant research on the strictness thesis is based on data that are simultaneously: (1) measured at the congregational level; (2) randomly drawn from many congregations across many denominations; (3) report on direct measures of strict rules as actually practiced by local congregations; or (4) provide records that allow for the calculation of congregational growth as the main dependent variable. Accordingly, none of the previous studies has produced results that both represent all American congregations and that accurately evaluate the conceptual relationships hypothesized.

In contrast, the 2001 U.S. Congregational Life Survey (USCLS) eliminates these problems. Produced by the research office of the Presbyterian Church (USA), the USCLS gathered
information from over 300,000 parishioners in over 2,000 American congregations. Project director Deborah Bruce described their methods:

Three types of surveys were completed in each participating congregation: (a) an Attendee Survey completed by all worshipers age 15 and older who attended worship services during the weekend of April 29, 2001; (b) a Congregational Profile describing the congregation’s facilities, staff, programs, and worship services completed by one person in the congregation; and (c) a Leader Survey completed by the pastor, priest, minister, rabbi, or other leader. (Bruce 2002; see Bruce et al. 2006)

While the majority of these 2,000 congregations represent denominationally specific oversamples, 406 of them comprise a national sample of congregations that were identified by participants in the 2000 General Social Survey (GSS), which is administered biennially by the National Opinion Research Center at the University of Chicago. Specifically, an item on the GSS asked those respondents who had attended at least one religious service in the last year to identify their primary congregational affiliation. This process led to the identification of 1,329 unique congregations, each of which was subsequently invited to participate in the project. Of these, 436 returned Attendee Surveys, and 422 returned Congregational Profiles, which ultimately provided 406 complete cases that contained data from both forms.

We note that this response rate is lower than desired and would be problematic if our intent was to make point estimates of mean characteristics of all U.S. congregations such as the percent of congregations that forbid smoking, or such as the average rate at which American congregations are growing or declining. However, our analyses in this article do not concern such point estimates but rather are focused on interpreting relationships between characteristics—for example, whether congregations that ban smoking are growing or declining at rates faster or slower than those that do not. Additionally, although one can never know for certain, there are many reasons to think that low response rates have less of an impact on one’s ability to correctly determine the direction of relationships between variables in a population, than they do on one’s ability to make accurate estimates of mean values for that population. Accordingly, while we acknowledge that the USCLS response rate is lower than desired, we judge that the relationships that we identify and analyze in this article are nonetheless reflective of real processes that are actually occurring among U.S. congregations.

Continuing then with our description of the data set, it is important to explain here that because these 406 complete cases were initially identified through a random sample of American adults, they thus constitute a quasi-random sample of American congregations that is mathematically biased toward the selection of larger congregations. Specifically, the likelihood of a particular congregation being identified was directly proportional to the number of affiliated persons who would have named that congregation if they had been surveyed. Therefore, to rectify this bias, each congregation in the USCLS must be weighted according to the inverse of its estimated number of affiliated persons multiplied by a constant such that the sum of all the case weights equals the number of cases that have valid estimates of such persons. In turn, this creates a random sample of congregations from which inferences can be drawn for the population of all U.S. congregations. This statistical procedure, known as hypernetwork sampling, was first utilized by Miller McPherson (1982) to study voluntary associations and was later applied to religious groups in a key article by Mark Chaves et al. (1999), from which the methodology for the USCLS was directly derived.

Due in part to this unique methodological approach, the USCLS systematically addresses all four of the previously identified shortcomings in the extant literature. Specifically, the USCLS data are: (1) measured at the congregational level; (2) randomly drawn from many congregations across many denominations; (3) report on direct measures of strict rules as actually practiced by local congregations; and (4) provide records that allow for the calculation of congregational growth as the main dependent variable. Moreover, as described below, the data contain good indicators of
many of the other constructs shown in Figures 1 and 2. Together, then, these characteristics make the USCLS the best available data set for assessing the claims and counterclaims that have come to be associated with the strictness thesis.

Filtering Congregations and Operationalizing Constructs

Because the strictness thesis has typically been considered in terms of processes occurring within stable and well-established congregations, we opted to drop from analysis any congregation that had recently experienced an atypical, size-altering event. Specifically, an item on the Congregational Profile inquired whether during the last five years the congregation had: (1) absorbed or merged with another congregation; (2) experienced a congregational split; (3) started a new congregation; or (4) been formed as the result of another congregation’s efforts. Based on these criteria, 82 congregations were identified as having experienced one or more of these scenarios. After removing these congregations, 324 valid cases remained, and with this reduced data set, we operationalized our model constructs as follows.3

Evangelical Theology was operationalized as an interval-level variable based on congregationally mean-aggregated responses to two questions from the Attendee Survey. Although the survey contained only a limited number of items that examined the theological views of the respondents, we did, however, identify two pertinent questions that addressed key theological beliefs that we judge to be at the core of much evangelical thought. The first of these provided Likert scale response options to the question: “Do you agree or disagree with this statement: ‘All the different religions are equally good ways of helping a person find ultimate truth’?” A second item measured parishioner perspectives on biblical interpretation with response options ranging from the one pole of literal interpretation, through a series of progressively contextualized interpretations, to the other pole of the Bible being “an ancient book with little value [for] today.” Hence, while we recognize that evangelical theology might be measured and conceptualized in a variety of ways, and while we admit that neither of these items measured the kind of belief content that is often attributed to evangelicals (e.g., belief in the divinity of Jesus), we assert, however, that the combination of these two items points to evangelicalism’s unique theological stance—namely, that of an exclusive perspective on truth (addressed by the first question) coupled with a conservative view on the source of that truth (addressed by the second question). Moreover, our theoretical suspicion of the underlying cohesiveness of these two items was empirically validated by their very high bivariate correlation at the congregational level (.888). Consequently, we used the first factor of a principal components factor analysis to create the variable Evangelical Theology, which, in turn, accounts for 83 percent of the variance between these two items. Finally, it should be noted that although a small number of attendee cases had missing data and were not included in the congregational mean-aggregations, there are no missing data at the congregational level.

Congregational Strictness was operationalized as an interval-level variable based on responses to an item on the Congregational Profile that inquired whether the congregation had any “special rules or prohibitions” regarding nine activities including “smoking,” “drinking alcohol,” “what people eat,” “dancing,” “dress, hairstyle, jewelry, or makeup,” “gambling,” “unmarried adults living together,” “homosexual behavior,” and “how much money people give to the congregation.” Following Iannaccone’s (1994) explicit guidance to avoid measuring strictness in

3 Some persons might argue that congregations that had experienced these atypical, size-altering events should nonetheless be included in our analyses and perhaps controlled for through the use of dummy variables. However, because of the infrequency of each of these size-altering events, in combination with the high variation of the effect of each of these events on Congregational Growth (very large in some cases and relatively small in others), we judge that the inclusion of such cases in our analyses would add greatly to the unexplained variation in Congregational Growth without providing much offsetting explanatory power.
terms of rules or requirements concerning parishioners’ monetary giving to their congregation (in part to avoid conceptually conflating strictness with strength), we calculated the variable Congregational Strictness from the first eight of these prohibitions, all of which measured the kinds of “alternative activities” that Iannaccone argued often prove useful to restrict for the purpose of filtering out free riders. One of the issues that we faced at this point, though, was that 31 of the 324 congregations were missing data for at least one of these eight prohibitions. Although we considered dealing with this situation through the standard approach of listwise deletion, we assessed this to be undesirable due to the fact that most of these 31 cases still had valid data for the majority of the eight items. Instead, then, we decided to conserve as much information as possible through mean-imputing missing data for each prohibition. Accordingly, after dealing with the data in this fashion, we used the first factor of a principal components factor analysis to create the variable Congregational Strictness, which, in turn, accounts for 49 percent of the variance among the eight prohibitions.

Congregational Strength was operationalized as an interval-level variable based on two key concepts taken from Iannaccone, Olson, and Stark’s earlier mentioned article (1995) in which they proposed that congregational strength is best conceived of in terms of the money and time that parishioners give to their congregation. Accordingly, we first identified an item on the Attendee Survey that provided quasi-interval-level response options to a question asking respondents how much money they regularly give their congregation as a percentage of income. After congregationally mean-aggregating these responses, we then chose to measure the time that parishioners give to their congregation by looking beyond just rates of worship service attendance and instead considering the proportion of respondents within each congregation that indicated that they regularly participate in one or more group activities such as a Sunday school class, a Bible study, a prayer group, or any church-related fellowship group and/or social club. Based then on this information about financial contributions and parishioner participation, we used the first factor of a principal components factor analysis to create the variable Congregational Strength, which, in turn, accounts for 87 percent of the variance between these two measures. Finally, it should be noted that although a small number of attendee cases had missing data and were not included in subsequent calculations, there are no missing data at the congregational level.

Parishioner Recruiting Activity was operationalized as an interval-level variable based on congregationally mean-aggregated responses to an item on the Attendee Survey that provided quasi-interval-level response options to a question concerning the frequency with which parishioners had invited their friends and relatives to attend their congregation. Although a small number

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4 Although some persons might argue that parishioners’ financial contributions should be measured in terms of absolute dollars instead of as a percentage of income, doing so would not only artificially inflate the relationship between Congregational Strength and the demographic control variable that measures congregations’ average parishioner income, but it would also lead to conceptually and methodologically conflating these two variables in the analysis of subsequent constructs. Hence, because we want to include mean parishioner income as a control—especially in order to address Tamney and colleagues’ (2003) finding regarding the potential interaction effects of socioeconomic status—we chose to operationalize parishioner financial contributions as a percentage of income, thus allowing these two variables to work in tandem throughout our model.

5 Some persons might challenge this manner of measuring the time that parishioners give to their congregation, claiming, for instance, that participating in these kinds of congregational groups is actually a better indicator of a benefit received rather than of a resource given. We maintain, however, that to attempt to rigidly differentiate “giving time” versus “receiving time” is to misconstrue the reality that participating inherently and simultaneously involves both giving and receiving. Rather, our approach is to measure the degree to which a congregation’s parishioners participate in those activities that involve more than just nominal passive participation. Following Iannaccone et al., we concur that “[a] church’s survival thus hinges upon the number of members who devote time above and beyond standard worship services. Getting core members to show up for planning meetings, work days, choir practice, fellowship groups, and weekday Bible studies may prove much more important than getting casual members to attend more regularly” (1995:708).
of attendee cases had missing data and were not included in the congregational mean-aggregation, there are no missing data at the congregational level.

*Parishioner Perception of Value* was operationalized as an interval-level variable based on the congregational mean-aggregation of quasi-interval-level response options to three questions from the Attendee Survey. These questions addressed what we judge to be three core areas in which parishioners tend to assess the value of their congregation—namely, spiritual life (“Do you agree or disagree: ‘My spiritual needs are being met in this congregation or parish’?”), social life (“Do you have a strong sense of belonging to this congregation?”), and family life (“How satisfied are you with what is offered here for children and youth?”). Based on these three measures of value, we used the first factor of a principal components factor analysis to create the variable *Parishioner Perception of Value*, which, in turn, accounts for 64 percent of the variance among these items. Although a small number of attendee cases had missing data and were not included in the congregational mean-aggregations, there are no missing data at the congregational level.

*Congregational Growth* was operationalized as a ratio-level variable based on estimates of average weekly worship service attendance for the six years from 1996 to 2001 as self-reported on the Congregational Profile. Specifically, the variable *Congregational Growth* was calculated as the mean of the percent change for each of the five intervals between these six years. Intervals that were missing data for either one or both years were not included in the mean calculation. This resulted in valid growth/decline measures for 311 of the 324 congregations.

**Demographic Control Variables**

In accordance with the types of demographic control variables used in previous studies, and in order to especially address the earlier noted demographic critiques of the strictness thesis, we incorporate two sets of demographic variables into our model. The first set, Demographic Controls for Congregation’s County, are based on county-level census data corresponding to the geographic location of each congregation. Thus, unless otherwise noted, the following variables are all based on county-level 2000 U.S. Census data. *Northeast Region*, *South Region*, and *West Region* are dummy variables based on the standard U.S. Census regional codes (*Midwest* is the reference category). *Population Growth* is a ratio-level variable indicating the percent change in total county population between the 1990 and the 2000 U.S. Census. *Ln. Population Density* is a ratio-level variable indicating the natural log of the ratio of the total population to square mileage. *Prop. Unmarried Males* is a ratio-level variable indicating the proportion of males age 15 or older who had never been married. *Prop. Nontransient* is a ratio-level variable indicating the proportion of persons age five or older who were still living in the same residence that they occupied in 1995. *Education* is a ratio-level variable indicating the proportion of persons age 25 or older who had completed a high school education. *Income* is a ratio-level variable indicating

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6 We note that in a small number of cases, the attendance estimates contained what appeared to be either data keying errors or perhaps mistakes caused by careless respondents. For instance, in one case, the original attendance figures for the six-year period were 1,000, 1,000, 90, 900, 900, 900. We assume that the third number should be 90. Similarly, in another case, the figures were 124, 117, 117, 17, 107, 107. We assume the fourth number should be 117. Therefore, when obvious, we have made such corrections to the data.

7 For example, if a congregation was missing data on attendance for 1998, then there would be only three time intervals used to calculate the mean annual percent change for that congregation (1996 to 1997, 1999 to 2000, and 2000 to 2001). Our primary rationale in taking this approach was to utilize as much of the available data as possible, thereby reducing measurement error as compared to only using two points in time as has typically been done throughout the literature. Hence, in our worst-case scenario, where only two data points were available, our calculation is still no worse than what has been the standard practice in most previous research on church growth.
median household income for 1999. \textit{Prop. White} is a ratio-level variable indicating the proportion of persons who racially identified as white.

A second set of demographic variables, \textit{Demographic Controls for Congregation’s Parishioners}, mirrors the last two variables of the first set and then introduces a third. Instead, though, of reporting on the demographic characteristics of each congregation’s county, these variables describe the demographic characteristics of each congregation’s respondents to the Attendee Survey. Specifically, \textit{Income} is an interval-level variable based on the congregational mean-aggregation of quasi-interval-level response options to a question concerning the total annual income of the respondent.\textsuperscript{8} \textit{Prop. White} is a ratio-level variable indicating the proportion of attendee respondents who racially identified as white. \textit{Fertility} is a ratio-level variable based on the congregational mean-aggregation of the number of children that each attendee respondent indicated having who were both under the age of six and who regularly participated in the life of the congregation. Regarding this last variable, our intent here is to account for new children whose birth would have been reflected through an increase in congregational attendance sometime during the six-year period under consideration. Additionally, controlling for \textit{Fertility} specifically addresses the claim that any bivariate correlation between strictness and growth would be spurious due to higher birthrates among those who adhere to strict religious rules.

\textbf{Denominational Control Variables}

To control for denominational identity, we created 48 dummy variables corresponding to the 48 distinct denominational affiliations that were reported on the Congregational Profile.\textsuperscript{9} Thus, the reference category for these dummy variables corresponds to those congregations with no denominational affiliation. We note, however, that in line with our earlier discussion about the potential ramifications of assessing strictness either within or across denominations, there are good theoretical reasons to perform our analyses both with and without these controls. For example, given Iannaccone’s (1996) argument and Olson and Perl’s (2001) confirmation that much of the variation in strictness is between rather than within denominations, it certainly could be a mistake to include these controls. Indeed, doing so might remove much of the interesting variation in both strictness as well as in many of the other variables. Yet, at the same time, critics of the strictness thesis have suggested that because strictness and theology, as well as norms about giving, participating, and recruiting are all (arguably) characteristics of denominational identity, failing to include denominational controls would prevent us from testing whether the key constructs in our model are only spuriously related. Therefore, because of these concerns, our analyses report parameter estimates for the model constructs and the other controls in two ways—both with and without the inclusion of the denominational dummy variables. However, for the sake of space, we do not enumerate parameters for the 48 denominational variables themselves; rather, the column headers at the top of Tables 1 and 2 indicate which estimates are based on these controls.

\textsuperscript{8} We note that we originally conducted our analyses with an additional control variable for parishioner education. However, due to high multicollinearity between this education measure and our measure of parishioner income (as evidenced by a bivariate correlation of .776 as well as high variance inflation factors throughout our analyses), we decided to only include the income measure, which most clearly addresses the theoretical interests of previous research.

\textsuperscript{9} Although some persons might argue that including 48 denominational control variables is less efficient and/or less appropriate than simply controlling for denominations by means of religious tradition (e.g., evangelical, mainline Protestant, etc.), we judge that in order for us to truly test the denominational identity critique, it is necessary to assess the effects that particular denominations (e.g., Southern Baptist, United Methodist, etc.) may have on the various relationships among our model constructs.
Note: Ref. cat. for regions is Midwest; significance levels based on robust standard errors.

***p ≤ .001; **p ≤ .01; *p ≤ .05; †p ≤ .1.

**FINDINGS**

To begin, our first priority is simply to establish whether Congregational Strictness has any kind of direct relationship to Congregational Growth—that is, before investigating the various pathways that we have hypothesized as intervening between strictness and growth, it is important for us to confirm that the basic relationship between these two variables is real and deserving of explanation. Accordingly, we observe that the bivariate correlation between Congregational Strictness and Congregational Growth is .238 (p ≤ .001), which indeed suggests a moderate positive relationship. At the same time, we also note that the bivariate correlation between Evangelical Theology and Congregational Growth is .125 (p ≤ .05), which similarly suggests a positive relationship, albeit a weaker one.

In Table 1, we further explore both of these relationships by displaying the standardized beta values for the ordinary least squares regression of Congregational Growth. We include three blocks of variables: Block 1 regresses Congregational Growth on the demographic controls plus Evangelical Theology and Congregational Strictness; Block 2 adds Congregational Strength; and Block 3 adds Parishioner Recruiting Activity and Parishioner Perception of Value. Within each of these blocks, then, the first column contains parameter estimates based on the inclusion of the denominational controls, while the second column contains parameter estimates based on their

Table 1: OLS regression standardized beta values for congregational growth

<table>
<thead>
<tr>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 311</td>
<td>N = 311</td>
<td>N = 311</td>
</tr>
<tr>
<td>Demographic controls for congregation’s county</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast region</td>
<td>.021</td>
<td>.041</td>
</tr>
<tr>
<td>South region</td>
<td>.086</td>
<td>-.041</td>
</tr>
<tr>
<td>West region</td>
<td>-.076</td>
<td>-.052</td>
</tr>
<tr>
<td>Population growth</td>
<td>.062</td>
<td>.083</td>
</tr>
<tr>
<td>Ln. population density</td>
<td>.003</td>
<td>.038</td>
</tr>
<tr>
<td>Prop. unmarried males</td>
<td>.017</td>
<td>-.066</td>
</tr>
<tr>
<td>Prop. nontransient</td>
<td>-.049</td>
<td>-.019</td>
</tr>
<tr>
<td>Education</td>
<td>-.021</td>
<td>-.007</td>
</tr>
<tr>
<td>Income</td>
<td>-.120</td>
<td>-.068</td>
</tr>
<tr>
<td>Prop. white</td>
<td>.297</td>
<td>.180</td>
</tr>
<tr>
<td>Demographic controls for congregation’s parishioners</td>
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<td></td>
</tr>
<tr>
<td>Income</td>
<td>.106</td>
<td>.100</td>
</tr>
<tr>
<td>Prop. white</td>
<td>-.237†</td>
<td>-.211</td>
</tr>
<tr>
<td>Fertility</td>
<td>.226†</td>
<td>.201†</td>
</tr>
<tr>
<td>Model constructs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evangelical theology</td>
<td>-.271</td>
<td>.010</td>
</tr>
<tr>
<td>Congregational strictness</td>
<td>.313*</td>
<td>.206†</td>
</tr>
<tr>
<td>Congregational strength</td>
<td>.235</td>
<td>.144</td>
</tr>
<tr>
<td>Parishioner recruiting activity</td>
<td>-.006</td>
<td>.014</td>
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<tr>
<td>Parishioner perception of value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.329</td>
<td>.169</td>
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</table>
Table 2: OLS regression standardized beta values for the integrated strictness thesis path model

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Congregational Strictness N = 324</th>
<th>Congregational Strength N = 324</th>
<th>Parishioner Recruiting Activity N = 324</th>
<th>Parishioner Perception of Value N = 324</th>
<th>Congregational Growth N = 311</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast region</td>
<td>.010</td>
<td>.072</td>
<td>.052</td>
<td>.008</td>
<td>.125†</td>
</tr>
<tr>
<td>South region</td>
<td>.042</td>
<td>.079</td>
<td>−.044</td>
<td>.000</td>
<td>.148†</td>
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<tr>
<td>West region</td>
<td>−.037</td>
<td>−.104</td>
<td>−.075</td>
<td>−.070</td>
<td>.087</td>
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<tr>
<td>Population growth</td>
<td>.110</td>
<td>.017</td>
<td>−.031</td>
<td>−.043</td>
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<td>Ln. population density</td>
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<td>.126</td>
<td>.080</td>
<td>.166*</td>
<td>.051</td>
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<td>Prop. unmarried males</td>
<td>.194*</td>
<td>.121</td>
<td>−.313***</td>
<td>−.222***</td>
<td>−.068</td>
</tr>
<tr>
<td>Prop. nontransient</td>
<td>−.022</td>
<td>−.205</td>
<td>−.124</td>
<td>−.192**</td>
<td>.008</td>
</tr>
<tr>
<td>Education</td>
<td>.067</td>
<td>.084</td>
<td>−.039</td>
<td>.144</td>
<td>−.098</td>
</tr>
<tr>
<td>Income</td>
<td>.211†</td>
<td>.089</td>
<td>−.121*</td>
<td>−.002</td>
<td>−.032</td>
</tr>
<tr>
<td>Prop. white</td>
<td>.177</td>
<td>.203</td>
<td>−.095</td>
<td>−.110†</td>
<td>−.017</td>
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<tr>
<td>Demographic controls for congregation’s parishioners</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>−.277**</td>
<td>−.310***</td>
<td>−.064</td>
<td>−.161†</td>
<td>.016</td>
</tr>
<tr>
<td>Prop. white</td>
<td>−.034</td>
<td>.013</td>
<td>.037</td>
<td>.069</td>
<td>−.002</td>
</tr>
<tr>
<td>Fertility</td>
<td>−.022</td>
<td>.075</td>
<td>.067</td>
<td>.034</td>
<td>−.186*</td>
</tr>
<tr>
<td>Model constructs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evangelical theology</td>
<td>.593***</td>
<td>.410***</td>
<td>.290*</td>
<td>.553***</td>
<td>.196</td>
</tr>
<tr>
<td>Congregational strictness</td>
<td>.155*</td>
<td>.139**</td>
<td>−.102</td>
<td>−.080</td>
<td>.037</td>
</tr>
<tr>
<td>Congregational strength</td>
<td>.549***</td>
<td>.641***</td>
<td>.674***</td>
<td>.595***</td>
<td>−.068</td>
</tr>
<tr>
<td>Parishioner recruiting activity</td>
<td>−.006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parishioner perception of value</td>
<td>.461***</td>
<td></td>
<td></td>
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<tr>
<td>(R^2)</td>
<td>.655</td>
<td>.402</td>
<td>.824</td>
<td>.703</td>
<td>.771</td>
</tr>
</tbody>
</table>

Note: Ref. cat. for regions is Midwest; significance levels based on robust standard errors.

\*\*p \leq .001; **p \leq .01; *p \leq .05; †p \leq .1.
exclusion. Next to these parameter estimates, we indicate levels of statistical significance, which are based on robust standard errors due to our use of case weights—which, as earlier described, are necessary in order to correct for the hypernetwork sampling bias. Additionally, because our calculations of significance are based on robust standard errors, and because of the relatively small number of cases in our sample, we not only indicate significance at the .001, .01, and .05 levels, but also at the .1 level.

Thus, based on Table 1, we note three preliminary findings that we will shortly examine in more depth. First, we observe that even when controlling for the other model variables, Congregational Strictness has a small-to-moderate positive relationship to Congregational Growth across all three blocks both with and without denominational controls. As expected, the influence of Congregational Strictness on Congregational Growth does diminish as intervening model constructs are added in; yet, as we will discuss later, it is interesting that even in the last block, Congregational Strictness retains a significant independent relationship to Congregational Growth. Second, in contrast to Congregational Strictness, we observe that when controlling for the other model variables, Evangelical Theology does not have a significant relationship to Congregational Growth in any of the three blocks. Third, we note that Fertility has a positive relationship to Congregational Growth across all three blocks, both with and without denominational controls. Together, then, these observations provide some initial support for the basic claim that in opposition to the evangelical theology critique, the demographic critique, and the denominational identity critique, strictness does have an independent relationship to growth, which, no doubt, deserves further investigation.

Therefore, in Table 2, we consider these and the other construct relationships within the context of our full path model as it was earlier displayed in Figure 2. Specifically, Table 2 is laid out like Table 1, except that the pairs of columns give standardized beta values for the ordinary least squares regressions of the five endogenous constructs in the model. That is, each construct is regressed on all prior constructs such that Table 2 provides parameter estimates for all of the pathways in our model. Demographic controls, denominational controls, and levels of significance are all presented in the same manner as in Table 1.

Based on these numbers, then, Figures 3 and 4 graphically show our model along with the standardized beta values for all significant pathways. Figure 3 displays parameter estimates based on modeling with the denominational controls, while Figure 4 displays parameter estimates based on modeling without the denominational controls. From these tables and figures, we thus observe five sets of findings.

First, Evangelical Theology is strongly positively related to Congregational Strictness with denominational controls (.593) and only somewhat less so without denominational controls (.410). Congruent with Olson and Perl (2005), this suggests that without shared beliefs that justify strict rules, it is harder to implement and enforce congregational strictness. Additionally, this relationship implies that theologically liberal churches are less likely to have strict rules, at least not if one defines those terms as we use them in our measures. Also, in looking at the demographic controls, we observe that in line with the expectations of Iannaccone (1994) and Tamney et al. (2003), the mean income level of a congregation’s parishioners is negatively related to a congregation’s level of strictness both with (−.277) and without (−.310) denominational controls.

Second, both Evangelical Theology and Congregational Strictness are positively related to Congregational Strength. In particular, the Evangelical Theology to Congregational Strength relationship is moderately strong with denominational controls (.290) and becomes very strong without denominational controls (.553). Alternatively, the Congregational Strictness to Congregational Strength relationship is weak (but significant) both with (.155) and without denominational controls (.139). On the one hand, then, these findings offer validation for Iannaccone’s (1994) and Iannaccone, Olson, and Stark’s (1995) basic claim regarding the causal pathway between strictness and strength. Indeed, the fact that this relationship persists and is significant even after controlling for evangelical theology and denominational identity certainly lessens the likelihood
that the strictness to strength relationship is simply a spurious product of either congregational theology or denominational identity. On the other hand, though, these results also suggest that Roozen and Hadaway’s (1993) and Hadaway and Marler’s (1996) focus on the central role of evangelical theology is surely on target. That is, in addition to strength being the result of rational choice mechanisms such as filtering out free riders and incentivizing parishioners for reasons predicted by game theory (see Scheitle and Finke 2008), it seems reasonable to assume that strength—measured here in terms of parishioners’ participation and donations—is also the result of evangelicals who simply give time and money to their congregation because they believe it is the right thing to do.

Third, Congregational Strength is very strongly positively related to Parishioner Recruiting Activity both with (.549) and without (.641) denominational controls. At the same time, contrary to

Note: Demographic controls included in model; solid lines indicate path significance at the $p \leq .1$ level; OLS standardized beta weights indicated on significant pathways; significance levels based on robust standard errors.

$*** p \leq .001; ** p \leq .01; * p < .05; \dagger p \leq .1.$

Moreover, the validity of the strictness to strength relationship is further enhanced by the fact that our operationalization of Congregational Strictness is much more prone to measurement error than is our operationalization of Evangelical Theology. Although Congregational Strictness was calculated from eight items, the information came from only one person, the person who completed the Congregational Profile. In contrast, Evangelical Theology was calculated from two items, but both of these items were derived from the mean-aggregation of the attendee respondents at each congregation—a method that, no doubt, greatly reduced measurement error. Additionally, we note that the principal component factor used to measure Congregational Strictness accounts for only 49 percent of the variance among the eight prohibitions whereas the principal component factor used to measure Evangelical Theology accounts for a full 83 percent of the variance between the two attendee items. Hence, the fact that given all of these considerations, Congregational Strictness still has a significant effect on Congregational Strength reinforces the likelihood that the relationship is real and not spurious.
our hypotheses, Evangelical Theology is also positively related to Parishioner Recruiting Activity, though only when denominational controls are excluded from the model (.277). Thus, again, it appears that these findings offer support for both Iannaccone, Olson, and Stark (1995) as well as for Roozen and Hadaway (1993) and Hadaway and Marler (1996). That being said, however, the influence of Congregational Strength is much stronger than that of Evangelical Theology, suggesting that although theological beliefs may factor directly into the likelihood of a parishioner inviting someone to church, the bulk of the explanation has to do with the general strength of a parishioner’s congregation, which assumedly supports and encourages such behavior.

We note as well the interesting finding that Fertility has a negative relationship to Parishioner Recruiting Activity both with (−.186) and without (−.206) denominational controls. While we cannot offer any definitive explanation for this, further analysis reveals a slight but significant bivariate correlation between Parishioner Recruiting Activity and the mean age of a congregation’s respondents to the Attendee Survey (.124, p ≤ .05). Consistent with this, we thus tentatively speculate that congregations that have high numbers of children under the age of six are necessarily comprised of young (and busy) families, who perhaps are hard pressed to find the time to engage in recruiting activity.

Fourth, Congregational Strength is very strongly positively related to Parishioner Perception of Value both with (.674) and without (.595) denominational controls. Accordingly, this persuasively validates one of the core axioms of Iannaccone’s (1994) and Iannaccone, Olson, and Stark’s (1995) version of the strictness thesis and, no doubt, makes intuitive sense: parishioners value strong congregations, which is to say that parishioners are far more likely to get their
spiritual, social, and family needs met within the context of a congregation that has the strength and resources to meet those needs.11

Fifth, both Parishioner Perception of Value and Congregational Strictness are positively related to Congregational Growth. As anticipated by our model, Parishioner Perception of Value is strongly related to Congregational Growth both with (.461) and without (.438) denominational controls. Unexpectedly, though, Congregational Strictness is likewise directly related to Congregational Growth both with (.261) and without (.174) denominational controls. Importantly, we also observe that contrary to our hypotheses, Parishioner Recruiting Activity has no significant effect on Congregational Growth; and, lastly, we note that Fertility is positively related to Congregational Growth both with (.208) and without (.162) denominational controls. We reflect, then, on this last set of findings in the concluding section of the article.

CONCLUSIONS

Perhaps our most important conclusion is simply that strictness matters. While the nature of our cross-sectional data limits our ability to make strong claims as to causal direction, given our theoretical framework, it certainly appears that strictness positively and directly affects strength, and that strictness positively and directly affects growth. The former relationship is, of course, predicted by our model, but the latter relationship is unanticipated. Indeed, going into this project, we assumed that the positive bivariate correlation between strictness and growth would be explained by the intervening processes at the core of the strictness thesis, and that if any direct relationship persisted, it would necessarily be negative. After all, we thought, how can strict rules—in and of themselves—be attractive or productive? Hence, the reality of the direct positive effect of strictness on growth leads us to consider three possibilities. First, it simply could be that, in contrast to our intuition, strict rules may, in fact, have some degree of innate attraction, perhaps due in part to social-psychological reasons. For instance, as Kelley suggested, strict rules may serve to validate and authenticate a congregation’s spiritual claims (1972:80). Additionally, because persons’ perceptions of empirical (secular) costs and corresponding nonempirical (spiritual) benefits are often related (Stark and Finke 2000:216), it could be that some potential parishioners might seek out the former as a way to ensure the latter. Alternatively, a second explanation for the direct positive effect of strictness on growth is that our model may not include some additional intervening variable through which the effect of strictness might be mediated. Finally, a third possibility is that the operationalization of our model variables may not fully measure the constructs (and, therefore, the construct relationships) that we have hypothesized. Of these three possibilities, we judge that the last is the most likely situation, recognizing that although in many respects the response items on the USCLS are far superior to those of comparable data sets, they are, at the same time, also not perfect. As we noted earlier, this is certainly the case with regard to Evangelical Theology, but it is also the case with regard to Congregational Strength, where, for example, it would have been ideal to have more accurate measures of, say, the actual amount of hours per week that parishioners give to their congregation.

Another important conclusion is that our findings provide strong evidence that supports Iannaccone’s (1994) rational choice framing of the strength to value to growth pathway. Indeed, our model suggests that regardless of why a congregation might be strong, any subsequent growth of that congregations is likely to be the result of potential parishioners’ positive assessments of that congregation’s market value. In other words, congruent with the core of the religious economies

11 We acknowledge the possibility that the relationship between strength and value may be partially reciprocal and that parishioners who come to value their congregation may, in turn, be more likely to give time and money back to their congregation, thus enhancing its strength.
perspective, our findings imply that persons are less likely to join a congregation because someone has personally invited them and are more likely to join a congregation because of the ideal cost to benefit ratio that the congregation provides.\footnote{We acknowledge the possibility that the relationship between value and growth may be partially reciprocal and that parishioners who come to find themselves in a growing congregation may, in turn, be more likely to attribute increased value to that congregation.}

In conjunction with this, though, our model also clearly validates the importance of evangelical theology, which along with the mechanisms just described, produce a quite robust understanding of congregational growth that actually better reflects Kelley’s original version of the strictness thesis. As mentioned at the beginning of the article, Kelley conceptualized strictness in terms of “absolutism,” “fanaticism,” and “conformity”; but when Iannaccone later offered his version of the strictness thesis, he conceptualized strictness almost entirely in terms of external behavioral restrictions similar to those Kelley specifically cited as traits of conformity. A result of this is that strictness in the Kelley sense is a much broader concept than strictness in the Iannaccone sense, the latter unfortunately leaving out both the idea of absolutism and that of fanaticism. What is interesting, though, is that Kelley defined absolutism as the “belief that ‘we have Truth and all others are in error’” (1972:79), and he described fanaticism as the “missionary zeal to tell others the Good News of the meanings they have found” (1972:81). Hence, one can immediately see that what is missing from Iannaccone’s conceptualization of strictness is, in fact, very similar to our conceptualization and operationalization of evangelical theology. A prime implication of this, then, is that it may be that the structuring of parishioner belief (what we have called evangelical theology) and the structuring of parishioner behavior (what we have called congregational strictness) necessarily go hand in hand in the production of congregational strength and ultimately of congregational growth.

Turning our attention now to the demographic controls, we note that while specific characteristics of a congregation’s county are sometimes related to our model constructs, and while parishioner income and race similarly have some influence, our primary demographic finding is that fertility rates clearly have an effect on congregational growth and decline. Indeed, as seen in Table 1, Fertility has a more-or-less constant positive effect on Congregational Growth regardless of the inclusion of other variables in the model. This, no doubt, validates some of the assertions of early critics of the strictness thesis, and, moreover, is in line with Hout, Greeley, and Wilde’s (2001) more recent analysis. For our purposes, however, the critical thing to consider here is that while congregational birthrates apparently play a significant role in predicting growth, such a relationship appears to have no impact on the mechanisms of the strictness thesis. Additionally, when we conducted the exact same analyses without including Fertility, the model parameters for the other constructs are virtually unchanged. This suggests that birthrates are an important factor for explaining congregational growth and decline, but that their role is independent of the strictness thesis—and, for that matter—the evangelical theology critique as well.

Finally, to assess the overall role of the denominational controls, we note that the $R^2$ values for the regression analyses that include denominational controls are all substantially larger than the corresponding analyses that exclude them. This suggests that denominational identity has a strong effect on each of our constructs, even if, by and large, the co-occurring effects of the other independent variables remain relatively unchanged regardless of whether or not denominational controls are included in the model. This, in turn, implies that denominations have particular cultures, practices, and perspectives that necessarily influence congregational dynamics such as strictness, participation, and giving behavior, yet such influences do not appear to systematically interact with or mitigate the relationships among the various dynamics themselves. As a caveat, however, the implications of the larger $R^2$ values must be muted to some degree by noting the methodological qualification that introducing 48 denominational dummy variables into our
regression analyses necessarily inflates the $R^2$ calculations independently of these variables true causal effects.\textsuperscript{13}

In summary, it has now been almost 40 years since Kelley first proposed his strictness thesis. Since then the notion of strictness as an explanation for the growth and decline of religious groups has been variously touted, discarded, and reasserted. Many disagreements have arisen because researchers simply lacked congregational-level data that were randomly drawn from many congregations across many denominations and that also contained good measures of strict rules as well of congregations’ numerical growth and decline. Thus, although one can always wish for better data, our use of the USCLS allows for the first truly full test of the several claims and counterclaims that have come to be associated with the strictness thesis.

So, using these data, what do we find? To the degree that previous critiques of the strictness thesis have claimed that strictness is spuriously related to congregational growth, we reject the evangelical theology critique, the demographic critique, and the denominational identity critique. Despite controlling for all of these factors, strict rules remain positively associated with congregational growth both indirectly and directly. At the same time, though, our results also suggest that it would be a mistake to discard the importance of the alternative explanations suggested by these critiques. In particular, we find that alongside that of strictness, evangelical theology, fertility, and denominational identity all play important roles in the prediction of growth. Together then, these findings lead us to assert our integrated model not just as a validation of the strictness thesis but, indeed, as a new and more fully robust sociological understanding of congregational growth and decline.

\textbf{REFERENCES}


\textsuperscript{13} We do not report on adjusted $R^2$ values due to our use of case weights and robust standard errors, which makes the calculation of adjusted $R^2$ values inappropriate. Additionally, we note that although the $R^2$ values are indeed somewhat inflated by the addition of the 48 dummy variables, the particular values themselves are actually fairly inconsequential to our primary line of inquiry, which is less interested in the specific degree to which the inclusion of the denominational control variables increases the overall predictive fit of our model, and much more interested in whether and how the parameter estimates of the other model variables change when these denominational controls are included.

Tamney, Joseph B. 2005. Does strictness explain the appeal of working-class conservative Protestant congregations?


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