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Article

Bringing the Congregations Back in: Religious Markets, Congregational Density, and American Religious Participation

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Abstract: We draw on the organizational ecology tradition to frame the relationship between the religious environment of a community and local religious participation. Prior research linking religious environments to religious participation downplays a key organizational aspect of religion: the congregation. Following the organizational ecology usage of density, we argue that *congregational density*—the number of congregations per person within a community—impacts religious involvement by providing opportunities for participation and by fostering social accountability networks within congregations. Drawing on data from the 2000 Social Capital Community Benchmark Survey, we test the hypothesis that congregational density in a locality is associated with greater religious participation by residents. Our findings indicate that persons residing in congregationally dense communities are more likely to be members of churches, to attend church regularly, to participate in church-based activities, to participate in non-church religious organizations, to volunteer for religious work, and to give to religious causes. These findings hold while controlling for an array of individual and contextual-level variables. This notion of congregational density suggests that local factors transcend broader theological and/or denominational boundaries, resulting in variations in religious participation and commitment.

Keywords: religious participation; organizational ecology; congregational density

1. Introduction

Sociologists have a longstanding interest in identifying the determinants of American religious participation. For some researchers, variation in religious participation is explained by individual-level demographic and socioeconomic traits. Others have focused on how the relationship between those individual-level traits and religious participation may vary across communities. Still other researchers have studied how religious participation and other social and economic outcomes are linked to the local religious ecology as defined by the presence of specific denominations. Some researchers have conceptualized the religious ecology as the mix of religious denominations present in the community and the extent of interdenominational competition. In virtually every case, the local religious ecology is conceptualized and measured in terms of religious denominations.

These various approaches have proven valuable in explaining the role of the local religious ecology on community welfare. However, these conceptualizations of the religious ecology neglect the local congregational population that may mediate the relationship between a denomination's theological program and the individual religious adherent. To be sure, prior studies have devoted a great deal of effort to understand how congregations work, why some differ from others, and how congregations may interact with the broader community. Though, only rarely have researchers investigated the effect of the local religious ecology's *congregational population* on religious participation. This omission highlights an important research question: why are congregations overshadowed by denominations in macro-level explanations of religious commitment and participation?

Drawing on organizational ecology theory, we develop an explanation of how the local population of congregations influences participation in religious activities. Instead of focusing exclusively on denominations, we consider the embeddedness of religious participation within a local congregational population. Our central argument is that *congregational density*—the number of congregations relative to the local population—impacts the relative size and structure of congregations in a community. We hypothesize that a dense population of congregations will increase the likelihood of participation among community members. In contrast, people living in communities with a small number of churches relative to the local population will be less likely to participate in religious activities.

Our analyses test for the effect of congregational density on individual-level religious participation controlling for personal attributes known to affect the likelihood of religious participation such as age, gender, religious affiliation, and socioeconomic status. We employ several measures of individuals' religious participation: church membership, service attendance, participating in church activities, nonchurch-based religious organizational membership, volunteering for religious organizations, and giving to religious entities. We also specify potentially confounding local market factors, such as socioeconomic disadvantage. The models are also specified to minimize model endogeneity that can pose a challenge to analyses such as this one. It could be argued that highly religious areas may produce more churches. We posit just the opposite, but recognize that causal direction is not a trivial issue. We will return to a discussion of it after we develop our research hypotheses below.

2. Rethinking the Religious Environment: From Denominations to Congregations

The study of religious markets and religious participation finds its roots in Durkheim's assertion that religion is a primary integrating force that engenders social solidarity [1]. Berger [2] extends Durkheim's

perspective by arguing that markets where all community members adhere to a single theological orientation yield a greater level of religious participation and social integration. More recently, Stark, Finke, Iannaccone, and others [3,4] have provided evidence that a wide variety of religious choices within a community (*i.e.*, religious pluralism), rather than a single denomination, increases rates of religious participation. This approach is based on three key propositions: (1) unregulated religious economies will tend to be pluralistic; (2) pluralistic religious environments engender firm specialization; and (3) specialization generates religious participation. Thus, the lack of regulation in the religious marketplace permits the development of a wide array of faith traditions that become tailored to specific population segments [5,6].

Within the religious pluralism literature, the religious economy is organized by denominations—what Stark and others refer to as religious "firms" [3]. Although the pluralism literature contains occasional references to congregations and church leaders as actors in the history of the U.S. religious marketplace [6], religious congregations are largely absent from the empirical measurement of the religious economy. The degree of religious pluralism is measured using an index of denominational market concentration, the Hirschman-Herfindahl Index, which summarizes the concentration and/or dispersion of adherents across denominations in a given community. In this way, the religious establishment is equated with a denomination. Implicitly, congregations within a local religious market area are assumed to be uniform representatives of a denomination. Left veiled by such a measure is the variation of congregations within denominations across space.

Just as business establishments vary within parent corporate enterprises, congregations vary within denominations in important ways. First, regardless of denominational affiliation, congregations are socially embedded in communities that shape congregational life. Prior studies highlight the importance of the culture and social context of a locality in shaping a congregation [7,8]. Catholic congregations, for example, are strongly influenced by the composition of the parish population served by the church. This is reflected in empirical findings indicating that the activities of predominantly black Catholic churches differ from predominantly white Catholic churches [9].

Second, theological innovations and variation that generate sectarian movements do not always result in the creation of new denominations or splinter groups. In the case of Catholics, who account for over one-third of U.S. religious adherents, the development of religious orders provided an outlet for sect-like activity that was contained within the Catholic Church [10]. More importantly, Protestant congregations that can adapt traditional teachings to apply to local conditions are more capable of maintaining vitality among church members and minimizing the possibility of congregational splits [11]. These findings suggest that theological variation exists among congregations within a denomination.

Finally, in post-war America, adherents who shift theology find less need to switch denomination and may simply join a different congregation within the same denomination [12,13]. Recent research has further questioned the notion of socioeconomic, demographic, and geographic homogeneity within denominations [14]. This line of study argues that the greatest degree of population heterogeneity occurs between congregations rather than within them. Congregations, regardless of denomination, possess a greater level of homophily along a variety of dimensions. For example, Reimer [15] finds that social class is a significantly stronger predictor of congregational membership than is denominational affiliation. Another indicator of increasing denominational heterogeneity is seen in recent statistics indicating

that 15 percent of Southern Baptist Convention congregations are majority nonwhite congregations [16]. This portends a striking transformation of a once homogenously white religious denomination.

3. Bringing the Congregation Back in: Conceptualizing Congregations as an Organizational Population

Though denominations do influence certain practices in constituent congregations, churches have the capacity to act as autonomous organizations [17]. Even so, only two studies have utilized congregations to measure the religious environment and its link to religious participation. Examining intriguing historical data on rural congregations collected by Brunner [18], Finke and Stark [6] note that the number of congregations per 1000 persons is associated with higher community levels of religious participation. Welch [19] finds that more than one Catholic congregation in the local community influences religious participation among Catholic members. Building on these seminal studies, we contend that the organizational ecology tradition can be drawn on to further explicate the relationship between the religious environment and participation by adherents.

Indeed, others have made similar theoretical connections. For example, Stark and Finke [5] employ the concept of the niche to explain why some denominations have grown in the U.S. and others decline. One of the first adaptations of this perspective to religious congregations linked the concept of niche width to understanding the worship practices of congregations [17]. In a similar vein, Scheitle [20] and Scheitle and Dougherty [21] examine the relationship between niche competition and congregational population dynamics, such as congregational foundings and net change in the size of a denomination. Others have applied organizational ecology to explain historical fluctuations in membership size for specific denominations [22].

Although prior studies have focused on the creation of niche religious markets, researchers have yet to incorporate the concepts of *organizational density* and *density dependence* to explain the working of religious economies. Organizational density refers to the size of an organizational population in a given environment. For us, religious congregations comprise the organizational population of a religious economy. Organizational ecologists posit that the dynamics of an organizational population are dependent on the density of the population [23]. Density dependence occurs because the level of density in an organizational population determines the level of competition between organizations. In turn, competition reduces the rate of organizational founding (the creation of a new organization) and increases the mortality rate of organizations.

Density dependent processes are important because they have important consequences for the composition of an organizational population. Barron [24] notes that organizational density has a direct effect on the average size of organizations. As an organizational population reaches a peak level of density, high levels of organizational founding lower the average organizational size due to the large number of small organizations. As organizational density declines from its peak, average organizational size increases due to the "liability of smallness" [25]. The "liability of smallness" refers to the higher rate of mortality experienced by smaller organizations in dense, highly competitive organizational populations. Thus, low levels of organizational density result in a propensity of large organizations. In contrast, high levels of density result in a large number of small organizations and a smaller average organizational size.

4. Institutional Effects of Congregational Density on Religious Participation

We draw on the notion of organizational density to define our concept of congregational density. Congregational density is defined as the number of local congregations relative to the local population. Our application of organizational ecology posits that a high level of congregational density will result in smaller average congregation size due to density dependent processes. The concept of congregational density is especially useful for framing the individual's religious participation as embedded in the local population of congregations in a religious environment. Density impacts participation by conditioning two aspects of congregational life: participatory structures and social networks.

4.1. Participatory Structures

An important result of smaller organizational size is that congregations develop fewer authority hierarchies and a smaller division of labor [26]. This enables members of smaller organizations to participate more directly than members of larger organizations. In the small congregational setting, this means that members may participate more in decision-making and problem-solving activities. In large congregations, the absence of direct participatory involvement occurs in part because of formalized roles and a greater division of labor among members. Hierarchies are created to manage the large number of activities of the larger congregation. This may result in the establishment of leadership positions filled by additional clergy or lay members, increasing the social distance between rank-and-file members and the congregational leadership. Efforts to minimize this distance using small groups do not eliminate the negative effect of large size on participation and social support [27,28].

Variation in participatory structures has important implications for religious participation. Research on voluntary associations has demonstrated that organizational commitment is directly associated with three aspects of an organization's authority structure: participation of members in decision-making activity, frequency of communication between leadership and members, and the distribution of power within the organization [29]. In turn, the capacity for members to participate in decision-making strengthens the effectiveness of a voluntary organization [30]. Active church participation in terms of service attendance, membership in church groups, and the degree of communication with other members is also correlated with the amount of control and the distribution of control in the congregation [31]. In sum, congregational density results in religious participation through greater organizational commitment created by more participatory structures.

4.2. Social Networks

A second mechanism through which size influences participation is social networks. A number of writers have utilized social network explanations to link the theological orientation of the congregational population to a variety of social outcomes [32–35]. Yet, the impact of congregational density on social networks is less developed. Theories of social organization posit that increasing organizational size erodes group consensus on norms, reduces communication among members, and increases deviance from group norms [26]. In small organizations, strong shared consensus among members provides an accountability structure to regulate members. In addition to social regulation, small size limits the organization's capacity to accommodate differentiation among members [36]. The lack of differentiation

results in a homophilous membership base where members share social ties with similar members [37]. Shared norms and homogeneity within the organizational membership also facilitate the development of bonding social capital that may isolate members from the broader community and generate network closure among members [38].

In the congregational context, the homogenous nature of small congregations creates something of a boundary between the congregation and the broader community. As a consequence, congregations foster a high level of network closure, providing a means to develop trust and accountability [39]. One important institutional effect of congregational density is the local primacy given to religion. Network closure makes religion a more vital and central institution in the community because social networks will be disproportionately based on intracongregational ties. A second effect of network closure is the capacity for social control. No matter the norms of denominations, congregations hold expectations for members' participation in church activities [40]. When members are embedded in social networks with dense ties to other congregation members, levels of participation may increase because members mutually reinforce norms of participation [41]. In larger congregations, the capacity for social control of members is weakened because interactions between members become more impersonal.

5. Hypothesis: Congregational Density and Religious Participation

Rather than focus on the distribution of adherents across denominations, we apply organizational ecology theory to understand the local implications of the size of the congregational population. We propose a *congregational density thesis* and hypothesize that the number of congregations relative to the residential population of a community encourages religious participation. This hypothesis is distinct from denominational approaches because it focuses on the institutional effects of religious organizations. Organizational density exerts a downward pressure on the size of congregations due to the density dependence. In turn, congregationally dense religious environments with an abundance of small congregations take advantage of two institutional mechanisms: participatory structures and network closure.

Congregational density enhances participation through horizontal authority structures of smaller congregations. A lack of bureaucratic structure and more direct channels of communication between leaders and members results in higher levels of participation. Participatory structures enhance commitment to the congregation, and members are more likely to become religiously engaged. In addition, network closure increases religious participation because the capacity for social control and accountability among members is enhanced. The greater focus of network ties on religious congregations promotes the salience of religion in community life and underscores the importance of identifying with a congregation for community residents.

6. Data and Methodological Section

To evaluate our hypotheses, we analyze data from the 2000 Social Capital Community Benchmark Survey (SCCBS) merged with religious environment measures from the 1990 and 2000 Religious Congregations and Membership Study (RCMS). The RCMS provides county-level counts of the number

of congregations and adherents for 149 religious denominations and religious bodies [42] [1]. The SCCBS data were collected in 2000–2001 using random digit dialing telephone interviews and devised by the Saguaro Seminar at the John F. Kennedy School of Government at Harvard University [43]. Prior studies using these data have focused on topics including social capital, volunteering, financial giving, and public health [44–48].

We link county-level information on the congregational population and contextual population data to the communities of individual respondents. Our analytic sample is limited to 20,723 respondents [2] nested in 258 communities [3]. All analyses use person-level sampling weights.

6.1. Dependent Variables: Religious Participation

The outcomes in our analysis gauge an individual's religious participation across a number of dimensions. Researchers in the sociology of religion have examined the relationship between religious pluralism and religious adherence at the ecological level [49–52]. Our approach extends this prior work and differs from it by employing a multilevel design to test whether community-level religion variables influence individual-level religious participation. This strategy allows us to evaluate the importance of the community level in relation to the individual level, rather than limiting ourselves to inferring individual-level processes from aggregate measures. Only one study to our knowledge has hierarchically linked community-level data on religion to data on individual religious participation. Borgonovi [44] examines the relationship between denominational pluralism and religious participation. In that study, religious participation was measured using three indicators: weekly attendance at religious services, religious volunteering, and religious giving.

We build on this measurement strategy by incorporating six measures of participation: (1) volunteering for a religious charity (26%), (2) membership in a non-church religious organization (15%), (3) church membership (55%), (4) participation in church activities such as choir, prayer meetings, and bible study (38%), (5) weekly worship service attendance (41%), and 6) charitable giving to church or religious causes (67%). Our focal dependent variable is a summary index ($\alpha = 0.84$) of the standardized scores on each of the six indicators [43]. We also perform separate analyses for binary measures of each individual item to assess the strength of our findings.

6.2. Contextual-Level Independent Variables

The independent variables in our analysis include characteristics of individual survey respondents and community-level variables. All measures are from the year 2000 unless otherwise indicated. The key community-level independent variables in our analysis are measures of the religious environment. These are derived from the 1990 and 2000 RCMS in the U.S. data [42]. We calculate three

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1 An approximate census of U.S. religion, the RCMS data provide the most thorough record available of religious adherents and congregations by counties. The RCMS was sponsored by the Association of Statisticians of Religious Bodies in America (ASARB).

2 Missing values on the individual-level measure of household income were imputed using conditional mean imputation.

3 Rural South Dakota is excluded because geographic identifiers are not present for these respondents.

measures from county-level tabulations of religious congregations and adherents: congregational density, denominational pluralism, and the percent of population that is a church member.

We measure congregational density as the number of religious congregations per 1000 county residents. Our exploratory analyses identified skewness in the distribution of congregational density. Therefore, a natural log transformation was performed on this variable to induce normality. Our denominational pluralism measure is based on the Hirschman-Herfindahl Index of concentration. Denominational pluralism is calculated as:

$$DP = 1 - \sum_{i=1} p_i^2 \quad (1)$$

where p_i is the proportion of all religious adherents that belong to a given denomination. Large values of the denominational pluralism index indicate that religious adherents are dispersed across a number of denominations and low values signal that a specific denomination has a large market share of adherents.

We account for potential endogeneity in our models by controlling for community-level church membership in 1990. This variable comes from the 1990 version of the RCMS and is calculated as the number of religious adherents in the county divided by the total community population. We include this measure to address the potential reverse causation in our models due to the possibility that high levels of religious involvement among community members may result in a large number of congregations per person.

To control for socioeconomic and demographic characteristics of the county, we combine several items from the 2000 Census of Population and Housing and the Office of Management and Budget. We construct a summary measure that captures socioeconomic diversity in the composition of the county population. It is based on the Gini coefficient of family income inequality, the percentage of the population aged 25 and older with a high school diploma, and the percentage in poverty. Due to high correlations among these four variables, we summarize them using a factor score we refer to as a Socioeconomic Disadvantage Index ($\alpha = 0.87$). We control for socioeconomic disadvantage because individuals' religiosity may be higher in contexts experiencing large socioeconomic disparities and insecurities [53,54]. Disadvantage should also positively relate to religious charity activities because in a highly disadvantaged community, congregations may be more involved in social welfare activities [55].

To be sure, we account for major theoretical concepts at the community level intentionally using only a few variables. However, this parsimonious specification of models reduces the potential for multicollinearity at the community level [4].

6.3. Individual-Level Control Variables

Our individual-level control variables capture demographic, socioeconomic, and religious characteristics associated with religious participation in the literature [55–59]. To account for demographic variability in religious participation, we include a continuous measure of age in years and binary indicators for the respondent's gender, race-ethnicity, marital status, and the presence of children

[4] No evidence of multicollinearity was found upon examination of a correlation matrix with our community-level independent variables. All bivariate Pearson correlations are less than 0.50 (see Appendix). Variance Inflation Factors are below 1.5.

under the age of six in the household. Our measure of race-ethnicity includes categories for persons of Hispanic origin, Nonhispanic White (reference), Nonhispanic Black, and Nonhispanic persons of other race groups. At the individual level, the socioeconomic control variables in our models include measures of education, household income, and labor force status. Education is measured using four categories: less than high school diploma (reference), high school graduate, some college-associate degree, and college graduate. Labor force status is classified as employed, unemployed, and not in the labor force (reference). We classify religious affiliation using a coding scheme based on the Steensland *et al.* [60] typology of religious adherents (*i.e.*, Conservative Protestant, Mainline Protestant, Catholic, and Other). Predominantly black denominations are classified as Mainline Protestant due to the small number of persons identifying affiliation with this group. We pooled these categories because our models control for race-ethnicity which is strongly correlated with membership in a predominantly black denomination. To account for geographic differences in religious participation we control for southern residence (South = 1). Researchers have noted regional variation in church attendance, especially between the South and other regions [61–63]. Summary statistics are presented in Table 1.

Table 1. Descriptive statistics.

	Mean	**S.D.**	**Min.**	**Max.**
Community Level				
Congregations per 1000 (LN)	0.339	0.635	−0.979	1.935
Denominational Pluralism Index	72.493	15.797	16.314	92.408
Lagged Percent Church Members	50.110	16.718	15.415	137.839
Socioeconomic Disadvantage Index	−0.438	0.736	−1.964	2.052
Individual Level				
Age	44.581	17.260	18	99
Female	0.523	0.500	0	1
Married	0.565	0.496	0	1
Presence of Children Under 6	0.305	0.461	0	1
Labor Force Status				
Employed	0.660	0.474	0	1
Unemployed	0.029	0.167	0	1
Not in Labor Force (Ref.)	0.311	0.463	0	1
Household Income (in thousands)	51.118	25.549	10.653	100
Educational Attainment				
High School Graduate	0.275	0.447	0	1
Post High School Education	0.608	0.488	0	1
Less than High School (Ref.)	0.117	0.321	0	1
Race/Ethnicity				
Hispanic	0.713	0.453	0	1
Nonhispanic Black	0.083	0.277	0	1
Nonhispanic Other	0.126	0.332	0	1
Nonhispanic White (Ref.)	0.075	0.263	0	1
Denominational Affiliation				
Evangelical Protestant	0.106	0.308	0	1
Mainline Protestant	0.262	0.440	0	1
Catholic	0.323	0.468	0	1

Table 1. *Cont.*

	Mean	S.D.	Min.	Max.
Other Religious Tradition	0.169	0.375	0	1
No Affiliation	0.141	0.348	0	1
South	0.292	0.455	0	1
Composite Religious Participation Index	−0.086	0.746	−1.110	1.517
Volunteer for Religious Charity	0.263	0.441	0	1
Member of Nonchurch Religious Organization	0.151	0.359	0	1
Church Member	0.547	0.498	0	1
Participate in Church Activities	0.382	0.486	0	1
Weekly Church Attendance	0.406	0.491	0	1
Donate Money to Religious Charity	0.669	0.468	0	1

Note: Individual-level data are weighted.

6.4. Analytical Strategy

Due to the nested structure of the data, we use multilevel modeling to test our hypotheses regarding the effect of congregational density on religious participation [5]. Multilevel modeling is ideal for our hypotheses and data because the technique takes into account dependence of individual-level cases nested within the same contextual-level unit and properly estimates standard errors and cross-level relationships in hierarchical data [64]. Models are fitted using HLM 6. Our first model examines the composite religious participation measure. This model includes our lagged measure of church membership from 1990. In addition to providing a robust test of our hypotheses, this model assesses the degree to which reverse causation may impact our findings. We then estimate separate hierarchical logistic regressions for each of the six components of the religious participation index (religious volunteering, non-church religious organizations, church membership, church activities participation, weekly service attendance, and religious giving). These supplementary models demonstrate the degree to which our hypothesized congregational density effect occurs across a diverse set of religious participation indicators.

7. Results

In Table 2, we report regression coefficients predicting the composite religious participation measure. This model tests the notion that congregational density (the number of congregations per 1000 persons) is positively associated with religious participation. The results are consistent with our expectations. At the community level, an increase in the number of churches per 1000 persons is significantly associated with a higher score on the composite religious participation measure ($b = 0.083$; $P < 0.001$). By including a time-lagged measure of religious membership, the percentage of the population belonging to a church in 1990, this model also assesses the possibility that the relationship between congregational density and religious participation is due to reverse causation, such that more religiously

[5] Prior to estimating multilevel models with predictors, we examined an unconditional model to confirm the presence of significant variation in religious participation across communities (ICC = 0.0436; $\chi^2 = 1538.52481$, $P < 0.001$).

involved communities contain more churches per 1000 persons. We find that the coefficient for congregational density remains positive and significant net of lagged percent church members. This finding suggests that the effect of congregational density is robust and cannot be attributed to the level of religiosity within a community.

Table 2. Multilevel model predicting composite religious participation index.

Variables	Coefficient
Community Level	
Congregations per 1000 (LN)	0.083 ***
Denominational Pluralism Index	0.003 ***
Lagged Percent Church Members	0.004 ***
Socioeconomic Disadvantage Index	0.010
Individual Level	
Age	0.005 ***
Female	0.079 ***
Married	0.151 ***
Presence of Children Under 6	0.130 ***
Labor Force Status	
Employed	−0.080 ***
Unemployed	−0.120 **
Not in Labor Force (Ref.)	
Household Income (in thousands)	0.003 ***
Educational Attainment	
High School Graduate	0.179 ***
Post High School Education	0.331 ***
Less than High School (Ref.)	
Race/Ethnicity	
Hispanic	0.003
Nonhispanic Black	0.207 ***
Nonhispanic Other	0.043
Nonhispanic White (Ref.)	
Denominational Affiliation	
Evangelical Protestant	0.499 ***
Mainline Protestant	0.349 ***
Catholic	0.362 ***
Other/No Affiliation (Ref.)	
South	0.064 **
Intercept	−0.692 ***
Between community variance	0.0054
Within community variance	0.4453
Deviance	48677

Note: Community N = 258; Individual N = 20,723; Individual-level data are weighted; * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$ (two-tailed tests).

To assess the relative strength of significant relationships, we use the standard deviations of county-level means to calculate standardized coefficients. Of our two focal county-level indicators, the

magnitude of the congregational density effect is clearly the largest: the standardized effect of congregational density is 0.335 (0.083 × 0.635/√ 0.0247) and denominational pluralism is 0.303 (0.003 × 15.797/√ 0.0247).

Other significant community-level effects are also present. In this model, we also test the denominational pluralism hypothesis. This hypothesis suggests that increases in denominational pluralism are associated with higher levels of religious participation. The denominational pluralism index is positively and significantly associated with religious participation. This relationship provides evidence that persons residing in denominationally heterogeneous communities are more highly religiously involved. Inconsistent with insecurity theorists [53], socioeconomic disadvantage does not have a significant positive association with religious participation. Religious participation is not a function of community-level disadvantage and insecurity in these data. This finding is interesting because it demonstrates that the effect of socioeconomic status is limited to the individual level, where, as we will see below, increased individual-level socioeconomic status is positively related to religious participation.

This model also includes our set of individual-level control variables and we observe a number of statistically significant effects. We find that older individuals, females, married persons, and those residing in households with a child under the age of six exhibit higher levels of religious involvement. The effects of these demographic measures on religious participation are consistent with those of Alston and McIntosh [65] and Cornwall [66]. In contrast to Alston *et al*. [65] and Hoge *et al*. [67] who find little effect of socioeconomic status on religious participation, our results indicate that employment status is negatively related to religiosity, whereas household income and education have positive relationships with religious involvement. The coefficients for educational attainment indicate that persons with post high school education are more likely to participate in religious activities than high school graduates and those not graduating from high school. In terms of race and ethnicity, our findings echo those of Ellison and Sherkat [61] who report higher rates of religious participation among Nonhispanic African Americans.

In Table 3, we further evaluate the congregational density thesis by fitting hierarchical Bernoulli logit models for each indicator comprising our composite religious participation index. For brevity, only the coefficients for the congregational density, denominational pluralism, and the lagged church membership variables are presented. The estimates for these variables are largely consistent with those in Table 2. The first thing to note in Table 3 is that congregational density exhibits a consistent effect across all six dimensions of religious participation, even when holding other factors constant. Illustratively, compared with residents of the most congregationally sparse context, people in the most congregationally dense community are 2.4 times ($e^{1.935 \times 0.296}/e^{-0.979 \times 0.296}$) as likely to volunteer, 1.6 times as apt to belong to a religious organization, 2.3 times as likely to be a church member, almost twice as prone to participate in church activities, one and a half times as likely to attend weekly, and 1.6 times as liable to financially give to religious charities. We also find that denominational pluralism has a significant positive effect on four of the six outcomes. Pluralism does not influence church membership or religious giving. This latter set of results dovetails with Borgonovi's [44] recent observation of a positive relationship between county-level religious pluralisms and religious volunteering, but is not consistent with her observation that pluralism is significantly associated with giving but not service

attendance. The lagged percent church members control variable is significantly and positively related to all six dependent variables.

Table 3. Hierarchical Bernoulli Logit models of items comprising religious participation index.

	Volunteer for Religious Charity	**Nonchurch Religious Organization**	**Church Member**
Community-Level Religion Predictors			
Congregations per 1000 (LN)	0.296 ***	0.167 **	0.288 ***
Denominational Pluralism Index	0.008 ***	0.006 **	0.016
Lagged Percent Church Members	0.010 ***	0.006 **	0.016 ***
	Participate in Church Activities	Weekly Church Attendance	Religious Giving
Community-Level Religion Predictors			
Congregations per 1000 (LN)	0.197 **	0.139 *	0.167 *
Denominational Pluralism Index	0.007 ***	0.007 **	0.004
Lagged Percent Church Members	0.007 ***	0.009 ***	0.010 ***

NOTE: Models also include community-level socioeconomic disadvantage index. Individual-level data are weighted and measures controlled are: age, sex, marital status, presence of children under age 6, labor force status, household income, educational attainment, race/ethnicity, denominational affiliation, and southern residence; * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$ (two-tailed tests)

Calculating the magnitude of our focal county-level variables again reveals congregational density to have a stronger effect than denominational pluralism. A one-standard-deviation increase in congregational density is associated with a 20.7% ($e^{0.007 \times 0.15.797}$) boost in the odds of religious volunteering, whereas a one-standard-deviation increase in pluralism is associated with a 13.7% ($e^{0.008 \times 15.797}$) increment in the odds of volunteering—a substantial difference in odds (7%). Congregational density has a standardized effect of an 11.2% increase in the odds of non-church religious organization membership and pluralism 10.8%. For participation in church activities other than worship service, the standardized effects are 13.3% (congregational density) and 12% (denominational pluralism). The magnitude of the effect of congregational density on individual-level church membership is also considerable (20%). However, pluralism is not significant for church membership; people are just as likely to be a member of a congregation in a denominationally heterogeneous community as a community with a relatively high level of religious monopoly. In the case of weekly church attendance, pluralism has the stronger effect: a one-standard-deviation increase in pluralism is associated with a 12.4% and density a 9.2% increase in the odds of weekly church-going. As density goes up by one standard deviation, religious giving's odds also rise by roughly 11%. Pluralism has no significant influence on giving. Over and above the influence of community-level factors such as religious pluralism and individual-level characteristics, not only does congregational density play a significant role in all of the religious behavior outcomes, but with the exception of one indicator, congregational density has the strongest effect of our two focal community-level predictors.

8. Conclusions

Two lines of argument in the sociology of religion tradition have suggested that the distribution of adherents across denominations affects local levels of religious involvement [2,4,68]. Implicit in the use

of denominations is the assumption that denominations act as religious establishments themselves and adapt to fit the needs of population segments in a community. Instead, we suggest that, regardless of the local denominational composition, the number of congregations within a community will largely determine the level of competition.

The empirical evidence presented here for a congregational density perspective is reasonably compelling in three key ways. First, after accounting for a variety of individual and contextual-level covariates, congregational density remains a significant predictor of religious participation. This relationship holds after controls are introduced for demographic, socioeconomic, and spatial factors. Second, individual-level covariates have a substantial impact on the level of religious participation. This is a critical finding, because with one exception [44], all tests of the religious economy argument have utilized aggregate data. Our findings suggest that the analysis of aggregated rates of participation that do not adjust for individual-level attributes may be incomplete. Third, our findings regarding congregational density are obtained after accounting for the effect of denominational pluralism. Unlike recent research that suggests no relationship between religious pluralism and religious participation [44], we find support for the religious economies perspective forwarded by Finke and Stark [6]. Our models also indicate that congregational density has an effect independent of denominational pluralism and suggests that our congregational density argument makes a unique contribution to explanations of religious participation [6].

An important contribution of the congregational density approach is that it bridges the denominationally based approach of religious economy scholars and the emerging line of study on congregations [69]. The congregational density argument derived from organizational ecology theory is largely compatible with many of religious economy propositions on group dynamics and competition (for a complete list, see Appendix of Stark and Finke [5]). To be sure, Stark, Finke, and colleagues note the role of congregational size and recognize the consequences of social organization on member commitment.

Despite these similarities, our approach differs on three key aspects of religious economy theory. First, our congregational density perspective does not rest on a sect-church differentiation in which congregations can be placed along a continuum of tension with the broader society. We do not condition religious commitment and participation on the degree of tension between the congregation and the community. Our argument focuses on the relationship between the size of the local congregational population and the social organization of congregations. The results here show that congregational density exerts a significant influence on religious participation that is independent of denominational pluralism or levels of religiousness from prior decades. The congregational density approach differs with religious economy theory in a second way by emphasizing the importance of the organizational environment. The key environmental factor for religious economy theory is the level of regulation exerted on the religious marketplace by political forces. Beyond state regulation, there is limited discussion of features of the organizational environment that might explain the level of religious participation in a given community. Our density based approach begins to address this issue. Finally, we argue that the assumptions underlying our congregational density approach are not influenced by ongoing changes in U.S. denominational affiliation. Although survey data on religious affiliation point

[6] We note that the communities included in the Social Capital Community Benchmark Survey were not randomly selected. Thus, the sample may not reflect the entire national population.

to a decline over the past few decades, the number of congregations in the U.S. between 1980 and 2000 grew at a rate of 14.2% as compared to that of the U.S. population (13.2%) during this time (ARDA).

The results presented in this paper also point to an important avenue for future research. Although researchers have used denominational measures of the religious environment, such as the percentage of the population adhering to a conservative protestant religious tradition (for examples, see Beyerlein and Hipp [32]; Ellison, Burr and McCall [70]), much less is known about the relationship between congregations and measures of community welfare. The concept of congregational density is promising because it provides an institutional explanation of how the religious environment influences nonreligious sectors of community life. It also raises an important question. Given that an organizationally dense congregational environment fosters the development of participatory structures, is the religious environment associated with the local civic culture and democratic participation in community governance? We suspect that the social organization of the religious sector covaries with a participatory environment within nonreligious voluntary associations and other community problem-solving structures. Thus, congregationally dense communities may be better equipped to address the needs of local residents in terms of a broad array of health, safety, and socioeconomic well-being factors. These may be promising topics for further inquiry.

Author Contributions

The authors jointly conceptualized, analyzed data, and produced this manuscript.

Appendix

Table A1. Bivariate correlations for community-level variables.

	1	2	3	4
Congregations per 1000 (LN)	1.000			
Denominational Pluralism Index	0.080	1.000		
Lagged Percent Church Members	0.116	−0.442 ***	1.000	
Socioeconomic Disadvantage Index	0.310 ***	−0.336 ***	0.206 ***	1.000

Note: * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$ (two-tailed tests).

Conflicts of Interest

The authors declare no conflict of interest.

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