Influence of the civic community religious environment on family poverty: A multilevel analysis

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Abstract: This study integrates research in the civic community tradition and structuralist and individualist perspectives on poverty to assess the relationship between religious-based civic community structures and family poverty in the United States. Using multilevel analyses of 2006–2008 American Community Survey, 2000 Census of Population and Housing, and 2000 Religious Congregations and Membership Survey data, results demonstrate that the presence of Mainline Protestant and Catholics adherents within communities—measured as the percentage of a community's population comprised of Mainline Protestant and Catholic adherents—is significantly and negatively associated with family poverty risks, net of other family and community factors. That is, in communities with a greater presence of Mainline Protestants and Catholics, there were also lower risks of families being in poverty. These findings suggest the importance of the ecology of religion within communities in understanding poverty outcomes for families.

Subjects: Area Studies; Built Environment; Social Sciences

Keywords: family poverty; religious environment; civic community; multilevel analysis

1. Introduction

Research rooted in the civic community perspective has identified the attenuating effect of civically engaged religious adherents on family poverty rates within communities (Lyson, Torres, & Welsh, 2001; Mencken, Bader, & Polson, 2006; Tolbert, Irwin, Lyson, & Nucci, 2002; Tolbert, Lyson, & Irwin, 2001). This study explores if and how religious adherents from civically engaged denominations within communities relate to family-level poverty across the United States. Results showed that a greater presence of civically engaged religious adherents within communities was significantly and negatively associated with family poverty risks, net of other factors.

ABOUT THE AUTHOR

Candice A. Myers received her PhD in Sociology from Louisiana State University. She is currently a Postdoctoral Fellow at Pennington Biomedical Research Center. Her research broadly focuses on the inter-related nature of socioeconomic well-being and health in individuals, community, and with a specific focus not only on the influence of individual factors and biological processes, but forces external to humans and their bodies as well, such as community of residence.

PUBLIC INTEREST STATEMENT

Religious bodies are important features within communities that contribute to the social fabric of places. Yet, are certain religious adherents and associated civic engagement within communities important in understanding a family’s poverty status? This study used data from multiple sources in the United States (US) to explore if and how religious adherents from civically engaged denominations within communities were related to family-level poverty across the US. Results showed that a greater presence of civically engaged religious adherents within communities was directly related to the socioeconomic well-being of families. This study highlights that family poverty is not simply the function of a family’s social and economic characteristics, but is also shaped by the community in which they live and the religious environment specifically.
While much civic community research has explicated the association between religious-based civic community structures and family poverty at the macro-level (i.e. county-level), little has explored how this relationship operates across multiple levels of analysis. This caveat is of particular importance given recent poverty research that has identified the multilevel nature of poverty dynamics by jointly modeling macro- and micro-level factors on family-level poverty outcomes (Brady, Fullerton, & Cross, 2009; Cotter, 2002; Cotter, Hermsen, & Vanneman, 2007; Poston et al., 2010). Such studies suggest that both where families live (e.g. county, metropolitan area) and the characteristics of families (e.g. single parent, number of children) influence family poverty outcomes.

This study aims to evaluate the association between religious aspects of civic community and family poverty by employing a multilevel framework that acknowledges both macro-level community features and family-level factors. The primary research question guiding this analysis is: Above and beyond family-level factors and other macro-level considerations, how is the civic community religious environment within communities related to family-level poverty? The civic community tradition suggests that the theological nature of Mainline Protestantism and Catholicism enhances the network structures of localities through civic engagement and bridging social capital. Moreover, these religious traditions have also been shown to support social welfare efforts and the poor. Taken together, a greater presence of Mainline Protestants and Catholics should provide a community context in which family-level poverty risks will be lower. By answering this research question this study (1) advances civic community research beyond only a macro-level relationship between religion and family poverty to understand how this relationship operates in a multilevel context; and (2) contributes to an ever growing body of poverty research utilizing multilevel frameworks to account for the concurrent influence of structuralist and individualist factors that shape poverty experiences and outcomes.

2. Individualist and structuralist explanations of poverty

Sociological poverty research has traditionally focused on two broad orientations to conceptualize poverty dynamics: individualist and structuralist (Cotter, 2002; Cotter et al., 2007; Lobao, 1990; Lobao, Hooks, & Tickamyer, 2007, 2008; Rank, 2004; Tomaskovic-Devey, 1988). Individualist explanations of poverty focus on the micro-level characteristics of individuals, families, and households, such as human capital characteristics (e.g. education, occupation), socio-demographic indicators (e.g. race/ethnicity, sex) or family composition (e.g. single mother headship). In contrast, structuralist perspectives focus on macro-level characteristics that generate aggregate levels of poverty, such as community social structures and institutions or local labor market conditions.

One approach to framing structuralist explanations of poverty is within the context of place. Understanding poverty dynamics within the context of place is important because the geographically defined places in which people reside and work (e.g. counties or labor market areas) vary in regard to local opportunity structures (Cotter, 2002; Lobao, 1990; Lobao et al., 2007, 2008; Tickamyer, 2000). As the structural features of places vary, so do the structural constraints and opportunitiesimpinging upon individuals residing within these places; that is, where an individual lives geographically shapes the range of social and economic options available. Guided by these ideas, recent theoretical and methodological developments are encouraging researchers to view individualist and structuralist explanations of poverty as complementary theoretical frames (e.g. Brady et al., 2009; Cotter, 2002; Cotter et al., 2007) as micro-level actors are, in actuality, embedded in varying macro-level contexts.

3. Civic community perspective

Empirical studies examining the structural correlates of community well-being have identified a range of important social institutions; one such institution is religion. In studies that have undertaken a civic community perspective to conceptualize and operationalize religion as an important contextual factor within places, results have shown associations with a number of community-level social outcomes, such as homicide rates (Lee & Bartkowski, 2004a, 2004b), crime rates (Beyerlein & Hipp, 2005), mortality rates (Blanchard, Bartkowski, Matthews, & Kerley, 2008), arrest rates (Ousey &
Lee, 2010) and residential segregation (Blanchard, 2007). Much of this research is rooted in the call to frame religion as an element of the social structure rather than as an individual-level trait; that is, conceptualizing religion as an institutional feature of ecological units (i.e. counties, communities) that holds consequences for place-based well-being (Blanchard et al., 2008; Stark, 1996).

Civic community research has identified the structural role that religion can play as a mechanism for civic engagement and source of social capital within places, and in turn enhancement of community well-being (Lee, 2006, 2008; Lee & Bartkowski, 2004a, 2004b; Mencken et al., 1998, 2006; Tolbert, Blanchard, Irwin, Lyson, & Nucci, 2001; Tolbert et al., 2002; Tolbert, 2005). Drawing on the theoretical underpinnings of social capital, which is defined as “social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam, 2000, p. 9), the civic community perspective focuses on the network structures within local communities that create an atmosphere of mutual obligation and generalized trust. Specifically, this perspective underscores those community structures that are locally oriented, as this emphasis on the local community serves an integrative function to promote an environment of social cohesion and encourage systems of cooperation among various spheres of community life. The resulting community atmosphere enhances local problem-solving capacity and increases the collective capability to address local issues, which in turn has the potential to heighten place-based well-being (Tolbert et al., 1998).

Notable here is the work of Tolbert and colleagues (1998), which examined the influence of civic community structures on socioeconomic measures of community welfare. These researchers investigated the linkages between community indicators of well-being—such as median family income, income inequality, unemployment, and family poverty—and local religious denominations. In order to capture the contextual impact of religion they identified religious denominations with adherents that displayed levels of civic engagement greater than the national average of other religious denominations. Utilizing 1990 Census of Churches data, Tolbert et al. (1998) classified civically engaged denominations as those with adherents who reported above-average membership in voluntary associations. This operationalization denoted a segment of the community population that facilitated the formation of social networks among both secular and non-secular community groups as these adherents participated in both religious institutions and external voluntary associations. Their findings indicated that localities with greater concentrations of adherents in civically engaged religious denominations manifested higher levels of socioeconomic well-being, with significant negative associations demonstrated between civically engaged adherents and income inequality, unemployment, and, of particular importance to this study, family poverty. Additional civic community research has also established the significance of the relationship between civically engaged religious adherents and lessened family poverty rates (Lyson et al., 2001; Tolbert et al., 2001, 2002). Notably, this research, and much civic community research conducted to date, has exclusively focused on macro-level predictors and outcomes.

4. The religious environment
Religious traditions in the US maintain particular theological and faith orientations that guide how adherents view and interact with the secular world. Mainline Protestantism includes such denominations as Methodist, Presbyterian, Episcopal, Lutheran, and American Baptist among others (Putnam, 2000; Steensland et al., 2000). Steensland et al. (2000, pp. 293–294) describe Mainline Protestants to “have typically emphasized an accommodating stance toward modernity, a proactive view on issues of social and economic justice, and pluralism in their tolerance of varied individual beliefs.” Catholic denominations include the Catholic Church, Polish National Catholic Church, and United Catholic Church, Inc. (Jones et al., 2002; Steensland et al., 2000). Catholicism promotes an ideology “deeply committed to the notion of social rights” (Adloff, 2006, p.1) and “articulate[s] a special concern and love for the poor and the oppressed and a commitment to the promotion of justice” (Bane, 2003, p. 15). Catholic Charities USA, operated by the Catholic Church, is a major private provider of social services within the US (Adloff, 2006). Given this, both Mainline Protestantism and Catholicism advance theological ideals that place a significant emphasis on worldly concerns, such as the alleviation of social ills and promotion of social equality for example (Beyerlein & HIPP,
These religious traditions are seen as externally, rather than internally, oriented given a focus not only on their own congregations and churches, but also on the broader communities in which they are located and local well-being (Wuthnow, 1999).

The distinct and varied theological orientations of religious denominations holds implications for how religion impacts community well-being, as evidenced by civic engagement activity and the cultivation of social capital. Importantly, it has been noted that social capital is not purely positive in its contextual influence, but rather can also have negative consequences for the broader community by excluding others from involvement and participation in certain groups or by focusing on maintaining solidarity among a homogenous group (Portes, 1998). Putnam (2000) recognized this in drawing out the distinction between “bridging” and “bonding” forms of social capital, which serves to explain how different forms of social capital reinforce different group processes and, in turn, differentially influence community network structures. Bridging social capital links groups to external network structures, or provides an external orientation, and “involves long-term trusting relationships but crosses boundaries of class, race, ethnicity, religion, or type of institution,” while bonding social capital serves to reinforce solidarity among a group, or provides an internal orientation, and “refers to networks that include people or institutions that are similar to each other and participate in exclusive sharing relationships” (Schneider, 2006, p. 5). Beyerlein and Hipp (2005, p. 999) noted this distinction in bridging and bonding social capital among religious groups asserting “the bonding activity of certain religious groups possibly constricts the larger network structures of communities.” Addressing Tolbert et al. (1998) operationalization of civically engaged denominations specifically, Beyerlein and Hipp (2005, p. 999) pointed to the potential concern in capturing civically engaged adherents by counting membership in any type of voluntary association rather than focusing on membership in organizations that promote bridging social capital. To address this issue, Beyerlein and Hipp (2006) identified how various religious denominations influenced bridging civic engagement and social capital within communities by developing a more precise method to capture this dynamic. They modeled the relationship between denominational membership and active participation in linking organizations—which were defined as organizations that were more likely to provide contact with other organizations—and charitable organizations—which were defined as organizations that provided charitable services to non-members—rather than membership in any voluntary association. Guided by these ideas, their research found that Mainline Protestantism and Catholicism demonstrated stronger effects on bridging social capital and civic engagement activity (Beyerlein & Hipp, 2006).

In a similar vein, Blanchard et al. (2008) focused on the cultural content of religion in further explicating the influence of religion within communities. These researchers asserted that the unique ideological and theological orientations of religious denominations are crucial for shaping how religious members influence the social environment of local communities. Blanchard et al. (2008, p. 1595) focused on the ecological context of religion by developing the concept of the “religious environment” to identify “the prevailing denominational tradition in a community.” The religious environment captures “both the demographic dominance of that faith tradition (i.e. its organizational presence or congregational ‘market share’) and its cultural content (i.e. the ideologies, values and theological forms of reasoning the denomination seeks to disseminate through its local congregations)” (Blanchard et al., 2008, p. 1595). This concept serves to provide a more holistic understanding of the role religion plays within communities by not only highlighting the demographic influence of denominations within local populations, but also emphasizing how religious bodies influence the social fabric of communities by “exert[ing] a cultural influence on community residents” through the dissemination of their particular ideologies pertaining to various social issues (Blanchard et al., 2008, p. 1609). Mainline Protestants and Catholics were posited to hold beneficial implications for local communities as these denominations promote the formation of external ties with other religious and secular groups. Blanchard et al.’s (2008) development of the religious environment concept provides further substantiation of the differential influence of various religious traditions on the network structures of local communities and in turn community well-being.
5. The civic community religious environment and poverty

Civic community research has demonstrated that the civic engagement activity and social capital engendered by certain religious denominations is related to improved community welfare, lower aggregate-level family poverty specifically (Tolbert et al., 1998, 2002). As religious denominations are “among the most vital associations connecting men and women across geographic, economic, and social boundaries, and providing diverse people with experiences of belonging to and serving a larger civic community” (Bane & Coffin, 2000, p. 12), they can be perceived as civic community structures that can serve to promote civic engagement and foster and maintain community social capital. Moreover, it is also important to acknowledge the role religion can potentially serve in communities as a provider of social welfare services and programs. The welfare reform act of 1996 (Personal Responsibility and Work Opportunity Reconciliation Act, PRWORA) not only changed the aim of social welfare in the US from providing cash aid as a need-based entitlement to a time limited system that requires work effort, but also altered how social services and programs are delivered. One such change is Section 104 of the welfare reform legislation, known as “Charitable Choice,” which contains a provision that allows “organizations whose main activity is religion (such as congregations) [to] receive public money to support social service activity” (Chaves, 1999, p. 837). Specifically, if states contract with non-profit organizations to deliver social services, religious institutions must be included in the pool of eligible organizations that can provide social services (Chaves, 1999). Among social welfare services, Charitable Choice allows faith-based organizations to provide such services as food pantries, job training programs, and medical and health clinics (Cnann & McGrew, 2005). This demonstrates the particular importance of religious bodies within communities, as they are a vital part of the social welfare structure (Center for Public Justice, 1997; Schneider, 2006; Warren, Thompson, & Saegert, 2001).

5.1. Civic engagement and social capital

Focusing first on civic engagement and social capital, which are particularly germane to the civic community tradition, the locally oriented nature of Mainline Protestant and Catholic religious traditions encourages civic engagement that forms bridging social capital within communities that can in turn be employed to address social issues (Ammerman, 2002; Beyerlein & Hipp 2005, 2006; Putnam, 2000; Wuthnow, 1999). Putnam (2000, p. 78) maintains that in comparison to other religious traditions “today’s mainline Protestants and Catholics are more likely to be involved in volunteering and service in the wider community.” Reinforcing this idea, Beyerlein and Hipp (2006) find that adherents in Mainline Protestants and Catholics are more likely to participate in activities that promote bridging social capital, such as involvement in charitable organizations. Because Mainline Protestant and Catholic religious traditions uphold a worldly orientation that promotes the creation of social networks with other community organizations, both faith-based and secular in nature (Putnam, 2000), these adherents are more likely to be actively engaged in the communities in which they are located with the intent to address social problems. However, a recent study found that religious tradition was not particularly salient in relation to civic engagement; rather, religious attendance was a strong correlate of multiple civic engagement indicators, including volunteering and charitable giving among others (Lewis, MacGregor, & Putnam, 2013).

5.2. Support of social welfare and the poor

Theological ideologies also influence how religious denominations view and understand poverty (Cnann & McGrew, 2005). In terms of poverty explanations shaped by denomination-based cultural traditions, Catholics and Mainline Protestants are less likely to view the causes of poverty in individualistic terms. In a study examining how religious affiliation was associated with poverty explanations among a sample of college students, Brimeyer (2008) found that Catholics and Mainline Protestants placed less emphasis on individual-level factors when asked about individualist (e.g. “lack of effort by the poor”) and structuralist (e.g. “prejudice and discrimination”) causes of poverty. Mainline Protestants, moreover, have been shown to be more likely to support government intervention in providing for the poor and often speak out against economic policies and practices that perpetuate economic disadvantage (Pyle, 1993). A recent spatial analysis of the relationship between community religious composition and non-profit density found that places with a greater presence
of Mainline Protestants also had more non-profits targeting anti-poverty efforts (Polson, 2016). While some Catholics support a free-market system (see Woods, 2015 for an in depth treatment of this topic), others posit that Catholics “are strongly in favor of the placing of restraints on private market forces, an egalitarian distribution of material resources, and a Federal responsibility for social policy” (Adloff, 2006, p. 2). The Catholic Church, in particular, has a long established record of policy advocacy as well as providing social services, as demonstrated with Catholic Charities USA whose explicit mission is to alleviate poverty (Bane, 2000). Chaves and Tsitsos (2001, p. 674) reinforce this connection between bridging civic engagement and social capital and social welfare provision in stating that “religious differences in collaboration are consistent with...enduring differences among religious traditions regarding many different manifestations of civic engagement.”

6. Summary and expectations
To summarize, the civic community perspective has proven relevant in understanding how religion functions within communities as a source of bridging civic engagement and social capital. Tolbert et al. (1998), specifically, found the presence of civically engaged religious adherents within localities to be significantly related to lower family poverty rates. However, recent evidence has suggested that the measure developed by Tolbert et al. (1998), and subsequently used by other researchers (see Lee 2006, 2008; Lee & Bartkowski 2004a, 2004b; Mencken et al., 2006; Tolbert et al., 2002), to capture civically engaged religious denominations may be imprecisely capturing these denominations by including “membership in any type of voluntary organization rather than membership in bridging organizations to classify civically engaged denominations” (Beyerlein & Hipp, 2005, p. 999). With this in mind, this study focuses on adherents belonging to those denominations that promote civic engagement and cultivate bridging social capital, as well as support the poor and social welfare: Mainline Protestantism and Catholicism. Taken together, a greater presence of Mainline Protestants and Catholics within a community should provide a context in which the occurrence of family poverty is attenuated. A conceptual multilevel model that presents the expected relationships between these measures is shown in Figure 1. In addressing this hypothesis, this study will provide a more nuanced understanding of the association between the civic community religious environment and family poverty, as well as highlight how this association operates across multiple levels of analysis by accounting for both structural and individual factors that influence poverty.

7. Methods and data
Data for this analysis are drawn from multiple sources. Family-level data are extracted from the 2006–2008 American Community Survey (ACS) 3-Year sample made available through the Integrated Public Use Microdata Series (IPUMS) of the Minnesota Population Center (Ruggles et al., 2010). The ACS is an annual survey of the US population that has taken the place of the long form questionnaire in previous decennial censuses. The 3-year sample is a 3% random sample of the US population and contains geographic identifiers that allow for individuals, families, and households to be located in geographically defined areas.

Most civic community research has focused exclusively on counties as units of analysis as these geographic units are understood to closely approximate the concept of community, as well as due to the availability of county-level data from numerous secondary sources and complete geographic coverage of the US (Lee, 2010). However, because this study uses a multilevel perspective, and therefore an appropriate multilevel modeling strategy, and ACS data, for which Public Use Microdata Areas (PUMAs) are the lowest level of geography available, counties cannot be used as the geographic unit of analysis. In this analysis, I utilize Migration PUMAs (MIGPUMAs) as community-level units of analysis. MIGPUMAs are based on one or more PUMAs, which are a single county or group of...
contiguous counties that contain a minimum population of 100,000 and do not cross state boundaries (US Census Bureau, 2009). Specifically, where PUMAs encompass one or more whole counties, which often occur in rural areas with less dense populations, MIGPUMAS are equivalent to PUMAs. When PUMAs do not encompass entire counties, which is often the case in urban areas with denser populations, MIGPUMAs are based on aggregations of two or more PUMAs in order to encompass whole counties (US Census Bureau, 2011). For example, in Los Angeles County there are 19 PUMAs, which are combined to form a single MIGPUMA that captures all of the Los Angeles County (Mouw & Sharma, 2009; Mouw, Silver, & Hagan, 2007). As such, MIGPUMAs are operationalized as communities in this analysis as they are geographically similar to counties and allowable by the data available for this multilevel study.

Data for community-level variables are drawn primarily from Summary File 3 (SF3) of the 2,000 Census. Data for the civic community religious environment are drawn from the 2000 Religious Congregations and Membership Survey (Glenmary Research Center, 2002). In total, the analysis includes 2,395,608 families situated in 1,024 MIGPUMAs.

7.1. Variables

The dependent variable in this analysis is family poverty. Families are defined as the householder and one or more persons who are related to the householder by birth, marriage, or adoption and who are living together in the same household. Family poverty is operationalized using the current official US poverty measure, which is an absolute measure of poverty that compares a family’s income to a series of income thresholds that account for varying family size and composition. A family is poor (=1) if their income falls below the poverty threshold for their respective family size and composition.

Family-level measures that are drawn from the extant literature on individual, family, and household correlates of poverty and empirical research on poverty in multilevel contexts (see Cotter, 2002; Cotter et al., 2007; Poston et al., 2010). These measures include the family householder’s age, sex (1 = female), race/ethnicity (non-Hispanic black; Hispanic; non-Hispanic other; or non-Hispanic white as the reference group), and educational attainment (bachelor’s degree or more; some college; high school diploma or equivalent; or less than high school as the reference group). Additionally, family structure effects are included in the model. These measures include the marital status of the householder (never married/single; widowed/separated/divorced; or married as the reference group) and the number of related children under the age of 18 as a continuous variable. Family labor supply characteristics are also accounted for by including a continuous measure of the number of employed family members.

The primary explanatory variable is the civic community religious environment, which is operationalized based upon the measure developed by Tolbert et al. (1998), and subsequently used by other researchers (see Lee, 2006, 2008; Lee & Bartkowski, 2004a, 2004b; Mencken et al., 2006; Ousey & Lee, 2010; Tolbert et al., 2002) and criticism of this measure, which asserts that Tolbert et al.’s measure may be imprecisely capturing civically engaged denominations by including “membership in any type of voluntary organization rather than membership in bridging organizations to classify civically engaged denominations” (Beyerlein & Hipp, 2005, p. 999). With these issues in mind, I focus more broadly on those denominations that promote civic engagement and cultivate bridging social capital: Mainline Protestantism and Catholicism. The civic community religious environment is measured as Mainline Protestant adherents and Catholic adherents expressed as the percent of total population. Data for this measure is from the 2000 Religious Congregations and Membership Survey (Jones et al., 2002), which is a decennial survey of religious organizations that provides statistics for 149 religious bodies within each county of the US, and are provided by the Association of Religion Data Archives (ARDA).
The analysis also includes a number of control variables for additional community characteristics. The total number of congregations in a community is included to better specify the relationship between the civic community religious environment and family-level poverty (Tolbert et al., 1998). Three labor market indicators that have proven relevant in previous multilevel poverty research are also included: the percentage of the labor force that is unemployed, the percentage of the population aged 25 years and older with a bachelor’s degree or more (i.e. college graduates), and the percentage of the labor force employed in professional, managerial, and related occupations, or what is often termed “good jobs” as these occupations are indicative of a skilled labor force and provide higher wages (Falk & Lyson, 1988). In addition, geographic controls include binary indicators for geographic residence in each of the four US Census regions (South, Northeast, Midwest, or West (reference)); and the percentage of each community’s population residing in metropolitan counties. To control for the relationship between minority concentration and poverty, the non-Hispanic black population, expressed as a percentage of the total population, is also included in the model. Lastly, research has provided evidence of the relationship between religious affiliation and income. It has been shown that Mainline Protestants tend to have higher incomes than others do (Keister, 2003), and Catholics have demonstrated recent upward mobility in this regard (Keister, 2007). Because these denominations are more likely to have members with higher levels of income, their presence within communities could influence the overall economic standing of a community by elevating aggregate socioeconomic well-being. With this in mind, this potential effect is controlled for by including per capita income in the models to account for general levels of income across communities.

7.2. Analytic techniques

This analysis uses two-level hierarchical modeling to estimate models at both macro- and micro-levels of analysis as predictors of a micro-level outcome, in this case family poverty. The multilevel analysis is carried out using hierarchical generalized linear modeling (HGLM), which is appropriate for a binary dependent variable (Raudenbush, Bryk, & Congdon, 2004). The primary focus of this analysis is the direct effect of the civic community religious environment on family poverty net of other macro- and micro-level factors (see Figure 2). A number of steps are taken to accurately specify the regression model. Both bivariate correlations and regression diagnostics reveal collinearity among a number of contextual measures. These include college graduates, good jobs, and per capita income, with significant bivariate correlations greater than 0.8 among these measures and variance inflation factors (VIFs) greater than 4. To control for collinearity among these variables, factor analysis is used to produce a single factor score that captures the overall influence of these measures, termed High SES, as each measure taps into the general level of affluence or socioeconomic status within a place, with higher values indicating higher community-level socioeconomic status.6

Steps are also taken to address the issue of spatial dependence among the second-level units of analysis. Due to the use of contiguous geographic units, it is necessary to adjust for potential spatial autocorrelation (i.e. correlated error terms among neighboring communities). Spatial autocorrelation violates regression assumptions and can potentially bias regression estimates. To control for spatial dependence, a spatial lag term is included in the multilevel regression models. The spatial lag is calculated as the average value of the percent of families in poverty among a community’s neighbors.7 Descriptive statistics for all variables included in the analysis are shown in Table 1.
8. Results

In order to determine if multilevel modeling is appropriate for these data, a null model with no predictors is first estimated (results not shown). Results from the null model demonstrate that significant variation in the likelihood of a family being poor does exist across communities in the US and multilevel analysis is appropriate. Next, two multilevel models are carried out to assess the association between the civic community religious environment and family poverty.8

| Measures                                      | Mean  | Standard deviation |
|-----------------------------------------------|-------|--------------------|
| **Dependent variable**                        |       |                    |
| Family poverty (poor = 1)                     | 0.08  | 0.27               |
| **Civic community religious environment**     |       |                    |
| Mainline protestant and catholic adherents    | 29.49 | 16.17              |
| **Controls**                                  |       |                    |
| Family householder characteristics            |       |                    |
| Age                                           | 50.57 | 15.42              |
| Sex (Female = 1)                              | 0.39  | 0.49               |
| Non-Hispanic white (Ref.)                     | 0.75  | 0.43               |
| Non-Hispanic black                            | 0.09  | 0.28               |
| Hispanic                                      | 0.10  | 0.30               |
| Non-Hispanic other                            | 0.06  | 0.23               |
| Less than high school (Ref.)                  | 0.12  | 0.33               |
| High school                                   | 0.27  | 0.45               |
| Some college                                  | 0.30  | 0.46               |
| Bachelor’s degree or more                     | 0.31  | 0.46               |
| Married                                       | 0.79  | 0.41               |
| Never married                                 | 0.07  | 0.25               |
| Widowed/separated/divorced                    | 0.14  | 0.35               |
| **Family characteristics**                    |       |                    |
| Number of related children under 18          | 0.84  | 1.12               |
| Total family members employed                 | 1.39  | 0.93               |
| **Community characteristics**                 |       |                    |
| Total congregations (ln)                      | 5.84  | 1.05               |
| Black population                              | 9.88  | 12.66              |
| Unemployed labor force                        | 3.51  | 1.03               |
| College graduates1                            | 21.10 | 8.98               |
| Employed in professional/managerial occupations1 | 30.90 | 6.75               |
| Per capita income1                            | 19,957| 4,808              |
| High SES                                      | 0.00  | 1.00               |
| South                                         | 0.41  | 0.49               |
| Northeast                                     | 0.20  | 0.40               |
| Midwest                                       | 0.25  | 0.44               |
| West                                          | 0.13  | 0.34               |
| Metro population                              | 65.35 | 42.90              |

Notes: N (Families) = 2,395,608; N (Communities) = 1,024; Family measures are weighted using normalized household weights.

1Variables combined into single factor score (High SES) for regression analysis.

8. Results
Model 1 in Table 2 shows the direct effects of Mainline Protestant and Catholic adherents on a family’s likelihood of being poor and provides an initial understanding of how the civic community religious environment is associated with family poverty without the influence of other contextual and family characteristics. Results demonstrate that the civic community religious environment is a significant predictor of the probability of a family being poor with a negative relationship between

### Table 2. Results of hierarchical generalized linear models (HGLM) of family poverty

|                                | Model 1       | Model 2       |
|--------------------------------|---------------|---------------|
| Intercept                      | -2.6809**     | 0.0795        |
| Civic community religious environment |              |               |
| Mainline protestant and catholic adherents | -0.0046**     | -0.0028**     |
| Controls                       |               |               |
| Family householder characteristics |              |               |
| Age                            | -0.0367**     |               |
| Female                         | 0.5256**      |               |
| Non-Hispanic black¹            | 0.5497**      |               |
| Hispanic¹                      | 0.6497**      |               |
| Non-Hispanic other¹            | 0.7220**      |               |
| High school²                   | -0.6749**     |               |
| Some college²                  | -1.0991**     |               |
| Bachelor’s degree or more²     | -1.8038**     |               |
| Never married¹                 | 0.8417**      |               |
| Widowed/separated/divorced¹    | 0.6680**      |               |
| Family characteristics         |               |               |
| Number of related children under 18 | 0.4508**    | -1.6632**     |
| Total family members employed  |               | -1.6632**     |
| Community characteristics      |               |               |
| Total congregations (In)       | 0.0188*       |               |
| Non-Hispanic black population  | -0.0054**     |               |
| Unemployed labor force         | 0.0735**      |               |
| High SES                       | -0.0740**     |               |
| South¹                         | 0.2361**      |               |
| Northeast¹                     | 0.1936**      |               |
| Midwest¹                       | 0.2971**      |               |
| Metro population               | -0.0020**     |               |
| Spatial lag                    | 0.0729**      | 0.0321**      |
| Reliability estimate           | 0.948         | 0.697         |
| Variance component (Random effect): Intercept | 0.159 | 0.038 |
| Variance component (Random effect): Level 1 | 0.995 | 1.441 |

Notes: Unit-specific models with robust standard errors. Results are weighted using normalized household weights. N (Families) = 2,395,608; N (Communities) = 1,024.
Source: American Community Survey 2006–2008; Decennial Census 2000 (SF3); and Religious Congregations and Membership Survey 2000.

* p < 0.01.
** p < 0.001.
¹Reference is non-Hispanic white.
²Reference is less than high school.
³Reference is married.
⁴Reference is west.
Mainline Protestants and Catholics within communities and the likelihood of a family being poor. The log odds estimate for Mainline Protestant and Catholic adherents is $-0.005$, which indicates that a unit increase in these types of adherents leads to a reduction in the odds that a family will be poor by a factor of $0.995$. This relationship shows that a greater presence of Mainline Protestant and Catholic adherents within places is associated with a 0.5% decrease in the odds that a family will be poor.

While hierarchical modeling does not provide a traditional $R^2$ statistic, it is possible to compare random effect coefficients between specified models to determine the percent of variance explained in the probability of a family being poor across communities. Utilizing the random effect coefficient for the intercept from the null model (0.280) and the same from Model 1 (0.159), it can be determined that $\frac{(0.280-0.159)}{0.280} = 0.432$ 43% of the across community variation in the probability of a family being poor is explained by the religious environment. This indicates that Mainline Protestant and Catholic adherents alone are significant ecological influences in understanding the log odds of family poverty.

Model 2 in Table 2 is the full hierarchical model that includes both contextual and family controls along with the key explanatory variable. Focusing on the primary independent variable, the civic community religious environment shares a significant and negative relationship with family poverty even with the inclusion of all community and family controls. The log odds, $-0.003$, of this measure shows that a unit increase in Mainline Protestant and Catholic adherents leads to a decrease in the probability that a family will be poor by a factor of $0.997$. This relationship demonstrates that in places with a greater proportion of Mainline Protestant and Catholic adherents, families experience a 0.3% decrease in the likelihood of experiencing poverty. While the inclusion of all controls in the model slightly reduces the impact of both Mainline Protestant and Catholic adherents on a family’s probability of being poor, these measures do maintain significant relationships with family poverty.

Specifically, it was hypothesized that the locally oriented nature of Mainline Protestant and Catholic adherents would provide a community context of bridging civic engagement and social capital and supportive local welfare efforts. In turn, this context would contribute to lessened risks of family poverty. Multilevel results reveal that the influence of Mainline Protestant and Catholic adherents meets these expectations.

Included in Model 2 are a number of controls at both the community and family level. All controls demonstrate significant relationships with family poverty. The model also shows a significant positive effect associated with the spatial lag, indicating the significance of spatial clustering among localities with similar levels of family poverty, net of other covariates. Using the intercept random effect coefficient from the null model (0.280) and from Model 2 (0.038), it can be determined that $\frac{(0.280-0.038)}{0.280} = 0.864$ 86% of the variation across communities in the probability that a family will be poor is explained by all measures included in the model. The inclusion of community and family controls not only ensures that the result for the primary explanatory variable is robust, these measures also increase the percentage of variation across places in the likelihood of family poverty explained—from 46 to 86%.

9. Conclusion and discussion

Prior research utilizing the civic community perspective suggests that the ecological influence of civicly engaged religious adherents is associated with lower family poverty prevalence across US communities (Lyson et al., 2001; Tolbert et al., 1998, 2001, 2002). Moreover, there is a developing body of sociological poverty research employing multilevel frameworks to account for macro- and micro-level considerations in the examination of poverty (see Brady et al., 2009; Cotter, 2002; Cotter et al., 2007; Poston et al., 2010). This development holds specific implications for civic community research examining family poverty as to date this research has solely focused on the macro- or community-level relationship between religion and poverty. The aim of this study was to examine the relationship between the civic community religious environment—Mainline Protestant and Catholic adherents specifically—and family poverty risks across US communities, and do so using a multilevel framework that that acknowledged both structural and individual influences on poverty.
Based upon the civic community perspective, it was suggested that the theological orientation of Mainline Protestant and Catholic adherents would promote a community atmosphere of bridging civic engagement and enhance the social capital content of localities, as well as support social welfare efforts and the poor more generally. Thusly, these dynamics would create a community context in which the risks of families experiencing poverty would be lower. Multilevel results examining this hypothesis support the importance of the civic community religious environment in shaping the poverty experiences of families and reveal a negative relationship between the presence of Mainline Protestant and Catholic adherents within communities and family-level poverty. Table 3 presents a summary of the primary finding shown in this study. Specifically, as Mainline Protestant and Catholic adherents enhance the social network structures of places, families experience lessened poverty risks. These results contribute to a larger body of empirical research demonstrating the heightening effects of religious-based civic community structures on beneficial community outcomes (Tolbert et al., 1998). Most importantly, however, these results advance this research by demonstrating this relationship maintains in a multilevel context, in that Mainline Protestant and Catholic adherents are associated directly with decreased poverty risk for families above and beyond other community-level influences and family characteristics.

While the results presented here provide new insights into the sociological examination of religion and poverty, this study is subject to a number of limitations. First, it is important to note that the causal mechanisms noted as theoretically important in this study are not directly measured and tested by the data analysed here. Rather, the presence of Mainline Protestant and Catholic adherents serves as a proxy for the assumptive mechanistic pathways—bridging social capital and civic engagement and support of social welfare and the poor—through which these religious traditions influence family poverty. However, this particular limitation can also be noted as a deficit witnessed in most civic community research examining the relationship between religion and poverty (Lyson et al., 2001; Mencken et al., 2006; Tolbert et al., 1998, 2002), as well as civic community research more broadly (Beyerlein & Hipp, 2005; Blanchard, 2007; Blanchard et al., 2008; Lee & Bartkowski, 2004a, 2004b). Second, the civic community perspective conceptualizes community as the primary ecological unit in which civic community processes occur. In this study, the use of Migration PUMAs as the contextual unit to measure community may be highlighted as an issue as these geographic areas potentially mask important intra-community variation in structural conditions. Further, it is difficult to measure “place” with no correct geographic scale at which to do so, and study results may be the function of geographic scale of choice in the analysis (Matthews & Yang, 2013). This limitation is one that is naturally inherent in the data as the focus of this study was to utilize a multilevel framework, which restricted the data available for this purpose as most data that allow for individuals to be situated into geographic units must take precautions to protect anonymity and confidentially. Further, this limitation can be noted in most civic community research as counties are almost exclusively used as ecological units of analysis.

While the results of this study contribute to the well-developed body of literature and empirical research rooted in the civic community tradition, there is clearly a need for further multilevel civic community research. Such research could prove insightful in further identifying how civic

| Expected relationship | Demonstrated relationship | Finding |
|------------------------|---------------------------|---------|
| Civic community religious environment will demonstrate a negative (−) association with family poverty | − | Multilevel results show an association that supports the expected relationship between civic community religious environment and family poverty: larger percentages of Mainline Protestant and Catholic adherents (↑) within communities are associated with lessened family-level poverty risks (↓) |
community operates in multilevel contexts, especially in regard to other socioeconomic outcomes (e.g. crime, mortality, residential segregation). Specifically, this research should explore cross-level interaction effects, such that a key macro-level measure of civic community moderates the relationship between a micro-level variable and the dependent variable. This research would highlight how civic community structures impact important micro-level relationships. This point is especially pertinent given research demonstrating, for example, the macro-level relationship between racial disparities in arrest rates. This research suggests that civic community indicators differentially impact the arrest rates of blacks and whites, such that civically engaged religious adherents have a significant positive effect on inequality in drug violation arrest rates between blacks and whites (Ousey & Lee, 2010). Future multilevel analyses could explore if racial/ethnic differences are at play; more specifically, how macro-level civic community structures moderate the influence of individual characteristics (e.g. race/ethnicity) on various micro-level outcomes (e.g. poverty, crime).

Future civic community research, both aggregate and multilevel, could also parse out if, and how, civic community differentially operates in varying poverty contexts, such as in persistent poverty regions, for example. Persistent poverty regions are those areas of the US (e.g. Appalachia, the Texas Borderland, the Lower Mississippi Delta) that are identified as having high and concentrated poverty. While civic community may have negative effects on poverty across the US in general, it is important to understand if these effects maintain in areas that are home to particularly deep-seated and long-standing poverty. Such comparative research could offer additional insights into the distinctive influence of civic community across varying poverty contexts.

This study also contributes to the growing body of poverty research utilizing multilevel frameworks. As findings from this study indicate a significant relationship between religious-based community features and family-level poverty, this provides additional evidence for pursuing multilevel poverty research to further identify both the structural and individual correlates and mechanisms of poverty. In this vein, it would also be beneficial to capture the multidimensional nature of poverty. This study relied upon the official US poverty measure, which is an absolute measure of poverty that is income-based and determines if a family is poor or not poor based on whether their income falls below the poverty line for their specific family size and composition (Iceland, 2005, 2006). In contrast, relative measures of poverty define poverty in relation to the economic standing of some reference group. Relative poverty measures often draw on thresholds specified at certain percentages of the national median income, such as 50%, for example, and thus better reflect evolving standards of living (Iceland, 2003, 2005, 2006). Both absolute and relative poverty measures typically categorize a family’s poverty status in dichotomous terms (i.e. as either being poor or not poor). However, there are other poverty measures that view economic hardship on a continuum. For example, depth of poverty measures not only identify if a family is poor, but how far from their respective poverty threshold a family falls. An example of a depth of poverty measure is the ratio of income to poverty, which divides a family’s income by its respective poverty threshold. Ratios of one or less indicate that a family is poor, with lower ratios indicating deeper or more severe poverty (Dalaker, 2001). This measurement allows for the determination of “extreme” poverty (e.g. families with incomes less than 50% of their respective poverty threshold) and “near” poverty (e.g. families with incomes less than 125% of their respective poverty threshold) (Iceland, 2006). Given these considerations, future multilevel poverty analyses should consider a comparative approach that employs multiple operationalizations of poverty for a more detailed description of family poverty than any one measure allows.

Poverty remains a steadfast problem in the US, with current research showing steady growth in poverty among school children (Southern Education Foundation, 2015). Drawing from this study, a number of policy and program implications should be considered in developing poverty reduction efforts. First, community-or place-based approaches should be considered given the varying contexts of where people live. The heterogeneous nature of localities means that the prevailing macro-social conditions within places can either augment or diminish the impact of poverty reduction initiatives, and policies and programs should therefore not take a one-size-fits-all approach to
reducing poverty. Instead, taking into account the unique contexts of places will afford policymakers a better understanding of how a particular policy or program will impact a community and its residents. For example, as seen in this study, policies and programs could exploit the advantageous effect of specific religious denominations within communities. In order to achieve long-term impacts on community well-being, policymakers should target those deficits within communities that exacerbate economic disadvantage while also utilizing and supporting beneficial community structures already in place. Last, both macro- and micro-level forces should be addressed when creating and legislating strategies for poverty reduction. While certainly not a small or simple undertaking, but by acknowledging both structural and individual factors shape poverty experiences, policies and programs could provide a more comprehensive approach to eliminating poverty.

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Notes
1 For exceptions, (see Irwin, Blanchard, Tolbert, Nucci, & Lyson, 2004 which examined migration/non-migration and Tolbert, 2005) which is the presidential address for the 67th annual meeting (2004a) of the Southern Sociological Society and used states as the second-level units of analysis.
2 Tolbert et al. (1198) identified the following 12 denominations as civically engaged: African Methodist Episcopal Zion, American Baptist, Church of Christ, Congregational Christian, Disciples of Christ, Episcopal, Jewish, Latter-Day Saints, Lutheran, Methodist, Presbyterian, and Unitarian.
3 More specifically, this study focused on assessing how the religious environment within communities was related to mortality rates. Empirical findings demonstrated negative relationships between Mainline Protestant and Catholic congregations and mortality rates.
4 IPUMS provides a relationship file that documents the geographic relationship between PUMAs and MIGPUMAs. This relationship file was used to create an equivalency file to assign families to their respective MIGPUMA based upon their current PUMA of residence as denoted in the ACS data file. Therefore, the MIGPUMA used in this analysis does not denote a family’s community of residence five years earlier, but rather denotes a family’s current community of residence.
5 Use of data extracted from the ACS must be weighted to provide reliable and statistically accurate estimates. As this analysis is based upon the householder and all individuals within a given household related to the householder, i.e. families, the proper weight to be utilized is the household weight (HHWT). Further, to adjust for the sampling design of the ACS, household weights are normalized. This is accomplished by dividing the weights by the sample mean of household weights to produce weighted case sizes that are approximately equal to the ACS sample size.
6 Principal component factor analysis with varimax rotation to create a single factor score accounting for 92% of the variance among these three variables. Ancillary analyses in which each of the three variables are entered into the models independently showed that each coefficient shared the same relationship with each of the dependent variables.
7 The spatial lag was produced by a first-order “queen” weights matrix, which is a contiguity-based matrix that defines a location’s neighbors as those areas with any point in common, including both common boundaries and common corners (Anselin, 2005).
8 Family-level effects are fixed and all multilevel models are carried out using restricted maximum likelihood estimation and results are reported from the unit-specific model with robust standard errors.

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