

Supersized Christianity: The Origins and Consequences of Protestant Megachurches in America

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Dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in the Department of Sociology
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ABSTRACT

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Abstract

In three distinct but related chapters, this dissertation explores the causes and consequences of an important trend in American religion – the concentration of people into very large churches. I undertake a systematic examination of historical materials to excavate the origins of the modern Protestant megachurch and find its genesis lies in the beginnings of the Reformation, not in the late twentieth century as commonly argued. I then turn to study the consequences of this shift, using data from the combined National Congregations Study and U.S. General Social Survey. I uncover a significant negative relationship between congregation size and the probability of attendance. These results provide convincing evidence in support of the theory that social interaction and group cohesion lies at the heart of the size-participation relationship. Finally, I use zero-inflated regression models to examine the relationship between size and the socio-economic status composition of the church. My analyses reveal a negative relationship between size and low household income. Larger congregations contain a larger proportion of regular adult participants living in high income households and possessing college degrees, and a smaller proportion of people living in low income households. In

congregations located in relatively poor census tracts, the relationship between high socio-economic status (SES) and congregation size remains significant. This research offers important correctives that help situate megachurches in the United States in their proper context. It provides important insights into how the shift of churchgoers into large congregations may concentrate power in these organizations and reduce overall rates of attendance.

To John Andrew Eagle,

who, on March 23rd, 2009 at the age of 68,

left this world too soon;

and to Isaiah John Eagle,

born on June 22nd, 2012,

who helped to fill the void he left behind.

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List of Abbreviations and Symbols

Symbols

- \mathcal{N} Normal (Gaussian) distribution.
- \sim is distributed with the following functional form.
- logit the logistic function.
- σ standard deviation.

Abbreviations

- BIC Bayesian Information Criterion
- DIC Deviance Information Criterion
- GSS United States General Social Survey
- NCS National Congregations Study
- SES Socio-Economic Status
- USCLS United States Congregations and Life Survey

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Special thanks to Linda George, Joel and Barbara Smith, and Katherine Goodman-Stern for their endowment of scholarships at Duke from which I benefited. I also regularly received travel awards from *the Society for the Scientific Study of Religion* to attend their annual meetings.

Finally, I want say thank you to my two older children, Joshua and Anastasia, for leaving the beauty of the Pacific coast to follow their Dad's dream. Thanks to Margaret Eagle for being willing to see her grandchildren move 3000 miles away. And deepest thanks to Alison Eagle for all of her love and support over 19 years of marriage. And while graduate school is hardly a matter of life and death, the birth of Isaiah Eagle and the death of John Eagle will forever mark this chapter of my life.

Introduction

This dissertation explores the causes and consequences of one of the most significant trends in American religion – the concentration of Protestant churchgoers into very large churches. This dissertation contains three substantive chapters, each of which explores this theme but is designed to stand alone as a distinct research contribution. The chapters are organized as follows.

In Chapter 2, which is published in slightly modified form in *the Journal of Social History* (Eagle 2015), I chart the long historical precedence of the megachurch. Beginning in the 1970s, large Protestant churches began to garner the attention of the media. In addition, many pastors heralded the megachurch as a new form of church, designed to meet the needs of the modern age. In this chapter, I dispel this myth by demonstrating that megachurches are not something new, but have a long historical precedent. Using the tools of social history, I connect mod-

ern megachurches to their historical predecessors in Protestantism and trace the development of the idea of the megachurch in the popular imagination. By doing this, I demonstrate that, as an institutional form, large, multipurpose churches enjoy a long history rooted in the basic impulses of the Reformation. As such, megachurches are here to stay.

In spite of the fact that megachurches are not a qualitatively new form of church, there are, nonetheless, several important trends with regards to the megachurch. Research has documented that across Protestant denominations, people are increasingly found concentrated in the largest one percent of churches. This trend began in the mid-1970s and shows no signs of stopping. Alongside this trend, per capita, the number of megachurches has grown more than 16 times from 1970 to 2005. Unfortunately, data are not available to get at the underlying reason for this trend. So, instead of tracing the reasons behind this increase, in Chapters 3 and 4, I explore the implications of the increase in the prevalence of megachurches.

In Chapter 3, which is presently unpublished, I investigate how congregational size is related to member involvement and satisfaction. The sociology of religion has a long standing interest in the ways in which congregational characteristics influence religious attendance. There is a large literature on the impact of size on how people interact with organizations such as workplaces, schools, and prisons. However, churches are voluntary organizations and the relationship of member involvement and size may look considerably different. This chapter

draws from nationally representative data – in this case, the National Congregations Study and the General Social Survey – to document that there is a negative relationship between size and the probability of attendance.

In Chapter 4, published in modified form in *Research in the Sociology of Work* (Eagle 2012), I seek to examine whether the socio-economic status composition of Protestant congregations varies with size. A long tradition of sociological research has demonstrated that people gravitate to different denominations based on their socio-economic status. This chapter reveals that a larger proportion of people with higher socio-economic status are found in large churches. It contributes to our understanding of the ways in which congregations exert influence in society.

This dissertation offers a sustained examination of what is considered as one of the most significant trends in Protestant religion in North America – the concentration of churchgoers into very large churches. This research is the first to clearly articulate the historical origins of the modern megachurch by connecting it to similar ecclesial forms from the Reformation forward. This research also offers the best evidence that size is negatively related to the probability of attendance. And finally, it is unique in demonstrating that size has a significant impact on the social composition of congregations. This dissertation helps students of American religion to understand the unique set of social forces shaping religious life in America.

Historicizing the megachurch

2.1 Introduction

The Protestant megachurch burst into the American consciousness in the 1980s. Megachurches differed from their predecessors by offering their participants a single organization to meet their spiritual, emotional, educational, and recreational needs. In 1989, the vanguard of the megachurch movement, 37 year-old Bill Hybels, said, “We’re on the verge of making kingdom history...doing things a new way for a whole new generation” (Chandler 1989). A 33 year-old Rick Warren, pastor of the then 5,000 member (now 20,000+ member) Saddleback Community Church echoed similar sentiments,

There’s a trend all across America moving away from the small neighborhood churches to larger regional-type churches. It’s the same phenomenon with malls replacing the mom and pop stores on the corner. People will

drive past all kinds of little shopping centers to go to a major mall, where there are lots of services and where they meet their needs. The same is true in churches today in that people drive past dozens of little churches to go to a larger church which offers more services and special programs. (Chandler 1989)

Writing in *Christianity Today*, Lyle Schaller, a prominent spokesman for the megachurch movement, proclaimed, "The emergence of the 'megachurch' is the most important development of modern Christian history. You can be sentimental about the small congregation, like the small corner grocery store or small drugstore, but they simply can't meet the expectations that people carry with them today" (Schaller 1990). This echoes the well-known marketing consultant Peter Drucker's claim that megachurches "are surely the most important social phenomenon in American society in the last 30 years" (Thumma and Travis 2007).

Several historians agree that megachurches lack precedent. Take Patrick Allitt. He sees them as an innovation of post-WWII America. "America's new megachurches," he argues "...were designed to provide an entire way of life, including schools, gymnasiums, dining halls, study groups settings, therapy sessions, aerobics classes, bowling alleys, and sometimes even Christian-themed shopping" (Allitt 2003). "Megachurch," Martin Marty says simply, "is...an invention of the Age of Greed" (Marty 1990).

Critics of the megachurch followed a similar line. Gustav Niebuhr, grandson of the famous theologian H. Richard Niebuhr, and long-time religion writer for *The Wall Street Journal* and *The New York Times*, summarizes their emergence as follows,

A shift of power and influence is slowly, but profoundly, changing the way many of the nation's 80 million Protestants worship. Since the 1980s, megachurches have gathered tens of thousands of worshipers into their folds and millions of dollars into their collection plates, becoming in the process new centers of Protestant influence. (Niebuhr 1995)

In her biting 1984 critique of fundamentalist culture Carol Flake writes, "By the beginning of the eighties, the Lord's business had become big business...The phantom congregations of the nation's TV preachers had become rooted in elaborate institutions and ordinary churches had grown into Super Churches" (Flake 1984).

With a similar axe to grind, William MacNair states,

In the panorama of religious events in the United States, the mega-church is something new. Nothing quite like it has appeared before. True enough, it did have precursors...But...these very large mega-churches are a 'new kid on the block' among religious organizations in the United States. (McNair 2009)

In this chapter, I demonstrate that it is wrong to consider megachurches a new organizational form that emerged in the 1970s. Even though arguments in

support of the novelty of the modern megachurch receive near-universal endorsement, a careful analysis reveals that megachurches are nothing new. The modern megachurch has emerged through a long process of evolution. The megachurch movement of the 1970s and 1980s has roots that tap deep into the soil of Protestant religion – especially, but not exclusively, in revivalism and the Institutional Church Movement of the 19th and early 20th centuries.¹ But their history, largely forgotten, goes back much farther. Among Protestants, the impulse to build what today we term megachurches stretches to the sixteenth century.

A number of inter-related forces created historical amnesia about the predecessors of the modern megachurch. First and foremost, megachurch promoters lived with a sense of manifest destiny – to them, their churches did represent something new, innovative and unprecedented. Newness and innovation have long possessed an enduring sense of appeal to middle and upper-middle class Americans, the group to which these pastors wished to appeal.² Additionally, by marketing themselves as a “new social phenomenon,” megachurches received a great deal of media attention. Even though much of the publicity took on a negative tenor, bad publicity is still publicity. The media took the proclamations about the unprecedented nature of megachurches at face value. This stemmed partially

¹ My thesis is not without precedent. Chaves (2006) and Kilde (2002) also share this view. Kilde raises the intriguing question, “Is Christianity, at some level, always about performance and spectacle?” Vaughan (1985), writing from an insider’s perspective, is careful to connect the large churches of late-twentieth century America to their historical predecessors in the US and America. (Towns 1969), makes similar observations.

² This point is developed in detail by Schmidt (1995).

from ignorance about religion on the part of the reporter (Buddenbaum 1998); but more importantly, journalism has long celebrated the sensational and obscured historical precedent in favor of novelty (Phillips 1976).

2.1.1 Defining Megachurch

Megachurches are big. While some attach a threshold to the number of attenders a megachurch contains – 2,000 regular attenders is popular (Thumma 1996) – it is sufficient to say that these are the very largest of the large. According to research analyzing the National Congregations Study, the largest 1 percent of Protestant congregations in the United States attracts 1,000 or more attenders (Chaves 2006). But beyond simply being big, megachurches share other characteristics. They come out of the Protestant tradition, they offer a multitude of programs tailored to people’s needs, and they frequently aim to achieve broader cultural importance. While most megachurches in America today espouse a conservative theology, this reflects the fact that the dominant form of Christianity today is evangelical in orientation, rather than an essential connection between conservative theology and very large churches.

Even though megachurches in everything but name have a long history in America, the media did not brand them as a distinctive form of religious organization until the 1980s. A collective awakening in the media to the presence of large Protestant congregations occurred in and around 1980. During this time the so-called ‘church growth’ movement began gaining prominence, due in large part

to the establishment of the Charles E. Fuller Institute of Evangelism and Church Growth at Fuller Seminary in 1980. This movement promoted marketing-based approaches to church organization and heralded several signature churches – including the flagships Willow Creek Community Church, Coral Ridge Presbyterian Church and Saddleback Community Church – as purveyors of a new kind of church for a new age. Elmer Towns at Liberty University; Stephen Vaughan at Southwestern Baptist Seminary; and C. Peter Wagner and Carl George at Fuller Seminary all occupied a central role in this movement. In some important ways, the media had put their collective finger on significant changes occurring in Protestant churches. As Mark Chaves points out, since the 1970s and across Protestant denominations people are increasingly found in the largest 1 percent of a denominations' congregations (Chaves 2006). Likewise, Thumma and Travis (2007) document a steady increase in very large churches. They estimate that in 1970, 50 churches with an attendance of more than 1,500 people existed in the United States but by 2005, that number had grown to more than 1,200. In their words, “while megachurches are not an entirely new phenomenon...the rapid proliferation of these churches since the 1970s...is a distinctive social phenomenon.” However, we should not confuse increasing prevalence with newness. While megachurches increasingly dot the religious landscape in America, we find evidence of similar ecclesiastical forms throughout Protestant history.

2.2 Early Precedents for the Megachurch

The early Protestant reformers criticized established forms of ecclesiastical organization that emphasized the church building as the primary locus of spiritual activity and contact. John Calvin railed against the Roman Catholic Church for spending large sums of money on opulent buildings, but ignoring the poor. He advocated for two main functions of the church building: as a place for people to come and hear the Word proclaimed, and as a place to receive the Sacraments, rightly administered (Calvin and Beveridge 1989). The former of these, preaching, became a central concern in Protestant architecture. Writing in 1577, the Protestant reformer Martin Bucer argues,

From the plans of the most ancient temples, and from the writings of the holy fathers, it is well known that among the ancients the position of the clergy was in the middle of the temples, which were usually round; and from that position divine service was so presented to the people that the things recited could be clearly heard and understood by all who were present. (Spicer 2007)

Bucer's ideas had a clear influence both on how early Protestants constructed their worship spaces and on how they conceived of the church.

Driven by the sentiments echoed by Bucer and a desire for cultural influence, it did not take long for Protestants to begin imagining what we would later call the megachurch. This story is complicated by the fact that in many places – for

instance, in Switzerland and parts of Germany – Protestants merely took over and renovated existing Catholic churches. This constrained the architectural possibilities. However, if we look at places where Protestants had to start from scratch – particularly in France, where the Reformation had a more radical character – we get a clearer picture of the ideas of the Reformation born out in bricks and mortar.

The edict of Nantes (1598) granted Protestants in France the right to legally build and organize churches. Already by 1601, Protestants began dreaming big. The Huguenot architect Jacques Perret provides a dramatic example. In his 1601/2 book, *Des fortifications et artifices, architecture et perspective*,³ he draws up plans for an idealized Protestant Temple, shown in Figure 2.1. It held nearly 10,000 people on its main floor and included two additional balconies. The preacher stood close to the center of the nearly square building to maximize the ability of worshipers to hear the sermon. Three levels of ancillary spaces to accommodate secular and religious purposes surrounded the temple. The roof has the characteristic lantern shape of many Protestant Temples, which amplified the speaker's voice (Guicharnaud 2000; Westphal 2006; Thomson 1995)

But Perret's vision encompassed more than a large building. He notes that the auditorium could easily be modified to accommodate town assembly meetings. Both Lutherans and Roman Catholics, who held sacramental views regarding buildings intended for worship, would have balked at the melding of secular and religious purposes in a sanctuary. Speaking of Perret's willingness to dream of

³ Roughly translated, "Fortifications and ideals, architecture and perspective."

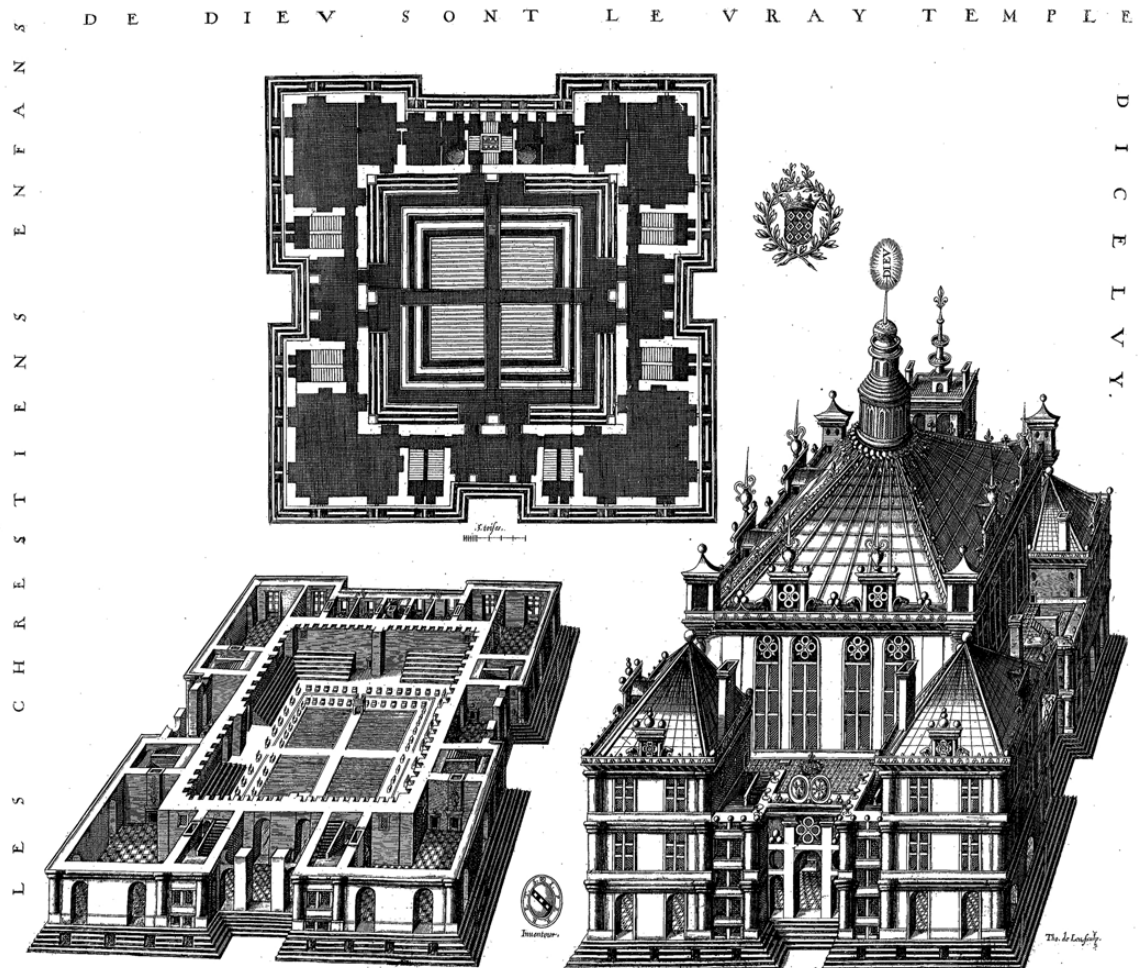


FIGURE 2.1: Jacques Perret's Design for a Grand Temple in his idealized city, 1601/2. Source: Reprinted from Jacques Perret's book *Des Fortifications Et Artifices: Architecture Et Perspective* (Paris, 1601). Public domain.

a worship space that could be reconfigured as a secular meeting space, one scholar says, "Nothing could more clearly demonstrate the radicalism of the French Reformers" (Hamberg 2002). Perret's vision points to the fundamental rethinking about the place and purpose of the building happening in the Reformation, particularly in France. Written around the outside of Perret's temple we find the slogan, "The Christian children of God are his true temple."⁴ The building is still

⁴ Author's translation.

grand and ornate, but it is no longer the locus of God's activity. This opens up the possibility that the church building can now play an important role in the wider political and cultural sphere. While Perret's grand Temple was never built, Protestant churches in France adopted similar designs. Many were square or polygonal and had multiple levels from which all attenders could hear the sermon. A 1704 collection of Dutch engravings report the Temple at Quevilly attracted 8,000 worshippers, the one at Dieppe, 6,000 (Thomson 1995). The Temple near Paris at Charenton provides the earliest example of a huge Protestant church. The first building burned down in 1621, but was replaced with the structure pictured in Figure 2.2 in 1623, which stood until 1685, when the edict of Nantes was revoked and the church destroyed. It seated several thousand, and was designed by another Huguenot court architect and contemporary of Perret's, Salomon de Brosse, in 1623 (Pannier 1911). It is not known if de Brosse and Perret had contact, but striking similarities between their designs exist. These buildings demonstrate an early goal among Protestants that when they had the opportunity to build from the ground up, they often built large structures, which accommodated thousands of worshipers and maximized the ability of individuals to both see and hear the leader perform worship.

2.3 Revivalism

George Whitefield (1714-1770) played a crucial role in fueling the Protestant impulse to reach the masses using large church buildings. He pioneered a theatri-

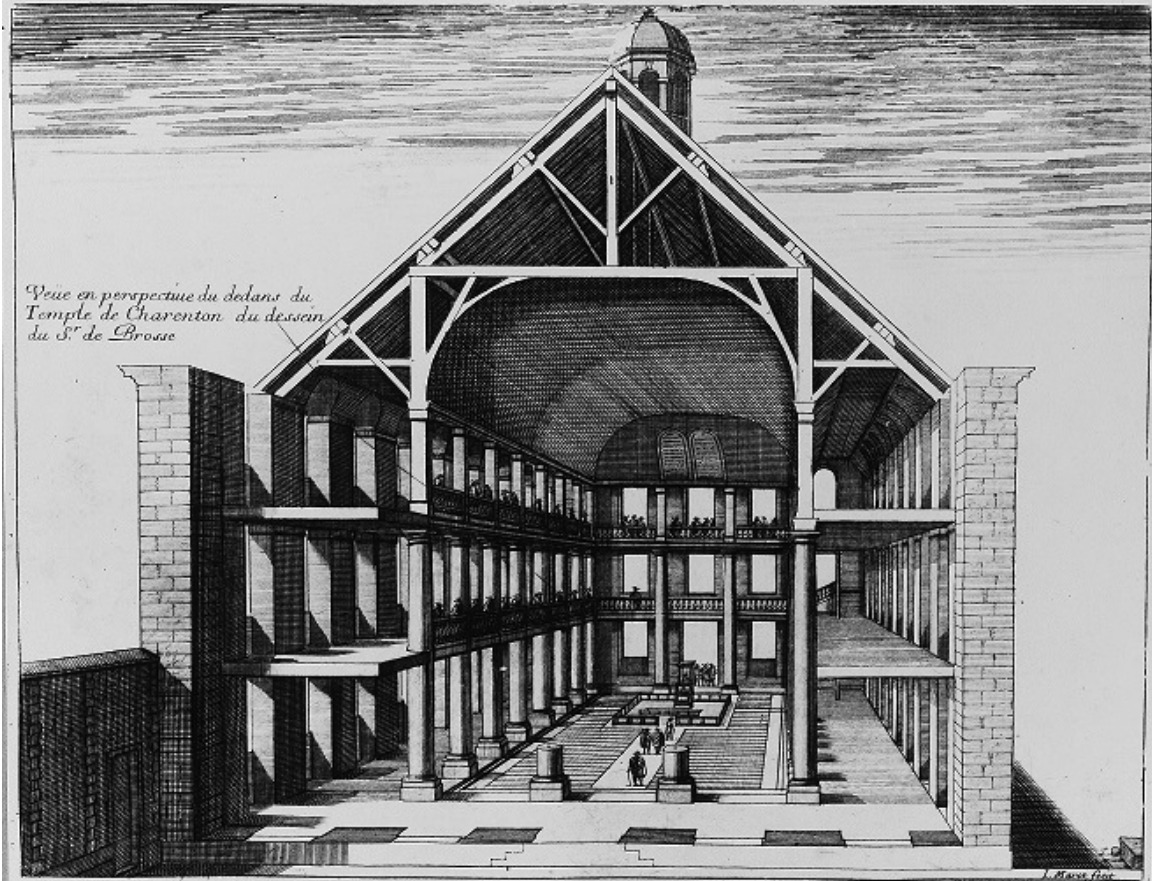


FIGURE 2.2: Temple de Charenton, an orthographic drawing by the architect, Salomon de Brosse, c.1623. Source: Used with permission from the Courtauld Institute of Art.

cal, engaging form of revival preaching, which attracted crowds of thousands (Stout 1991). Best known for his open-air meetings, Whitefield also commissioned a number of 'Tabernacles' throughout England. While originally built as temporary structures, quickly stone replaced the wooden buildings. Whitefield did not name his buildings 'churches' to avoid competition with the Church of England. The name also evoked images of the tabernacle used by the Israelites during their wanderings (cf. Exodus 25:25) and shared historical continuity with Scottish, Dutch and French Reformed groups (Spicer 2007). Two large Tabernacles, both

accommodating several thousand worshippers, made their home in London – the Moorsfields Tabernacle, built in the early 1740s and the Tottenham Court Tabernacle built in the 1750s. These Tabernacles have the characteristic square-design and ‘lantern-shaped’ roof, as opposed to the more traditional long nave and recessed altar of many Anglican churches. This design amplified the speaker’s voice and enabled seating in multiple levels around the speaker.

The famous English non-conformist, Charles Haddon Spurgeon, came closest to encapsulating Perret’s vision in bricks and mortar, eventually constructing the largest Protestant church building of his day. In 1853, he arrived in London at the age of nineteen to assume the pulpit of Park Street Baptist Church. His popular preaching attracted huge crowds and by 1861 he successfully oversaw the building of the Metropolitan Tabernacle, with room for 6,000 listeners (the church held multiple Sunday and midweek services). Figure 2.3 shows the interior of the original building. In continuity with earlier Protestant architecture – compare with the Temple at Charenton in Figure 2.2 – this structure maximizes the ability of the audience to hear the preacher. Spurgeon’s church did not merely serve as a place to hear preaching. It housed a huge Sunday School, a preacher’s college, a popular annual conference, an orphanage and an alms house. One hundred years later, which demonstrates the important place of Spurgeon in the evangelical imagination, a leading fundamentalist journal, *The Moody Bible Institute Monthly*, held up Spurgeon’s church as an exemplar, a point to which I will return below.



FIGURE 2.3: The interior of the Metropolitan Tabernacle, London, England, 1864. Source: Reprinted from *Life and Works of Charles H. Spurgeon* by Henry Davenport Northrop (Memorial Publishing Company, 1892). Public domain.

2.4 The Institutional Church

From very early on, American churchmen looked to Europe for their inspiration. They too, sought to reach the masses using large church buildings. Take the Second Great Awakening revivalist, Charles Grandison Finney. In 1836, shortly after renovating the Chatham Theater in New York into a church, he built a new structure to house the Broadway Tabernacle. It bears a striking resemblance to the 'new' megachurches of the 1980s. Many considered Broadway Tabernacle one of the most influential congregations of nineteenth century America. It seated 2,400, but could accommodate 4,000 (Loveland and Wheeler 2003). As Figure 2.4 shows, it featured

a central rotunda and a small stage, which again emphasizes the importance of preaching. It did not serve merely as a place of worship. The congregation rented the sanctuary during the week for various cultural performances; it hosted contemporary debates on women's rights, abolition, and prohibition; and the building housed an extensive ministry to the poor (Nichols and Chalmers 1940). This figure depicts the Tabernacle being used for the distribution of the American Art Union Prizes, again showcasing how from early on in America, using a church building to host high culture and notably secular events, had an accepted place.

Grace Baptist (Temple) Church, built in 1891 in Philadelphia, PA, provides another clear example of the late-20th-century megachurch in nineteenth-century garb. Standing as a leading exemplar of the Institutional Church Movement and seating at least 3,000 (and perhaps as many as 4,500) the church "combined the auditorium church form and multipurpose facility, enabling them to appeal to the urban elite while at the same time fulfilling a commitment, inherited from the revivalists, to promote moral reform and to evangelize the masses" (Loveland and Wheeler 2003). The Temple centered around its charismatic leader, Russell H. Cornwell, and possessed a college (which would later become Temple University); one of the best-equipped gymnasiums in Philadelphia; a nearby cricket field and baseball diamond; an affiliated Hospital (to which the Sunday services were broadcast over special speaking tubes); a separate 'Young People's Church', which met in the basement and could accommodate 2,000; a large banquet facility; and

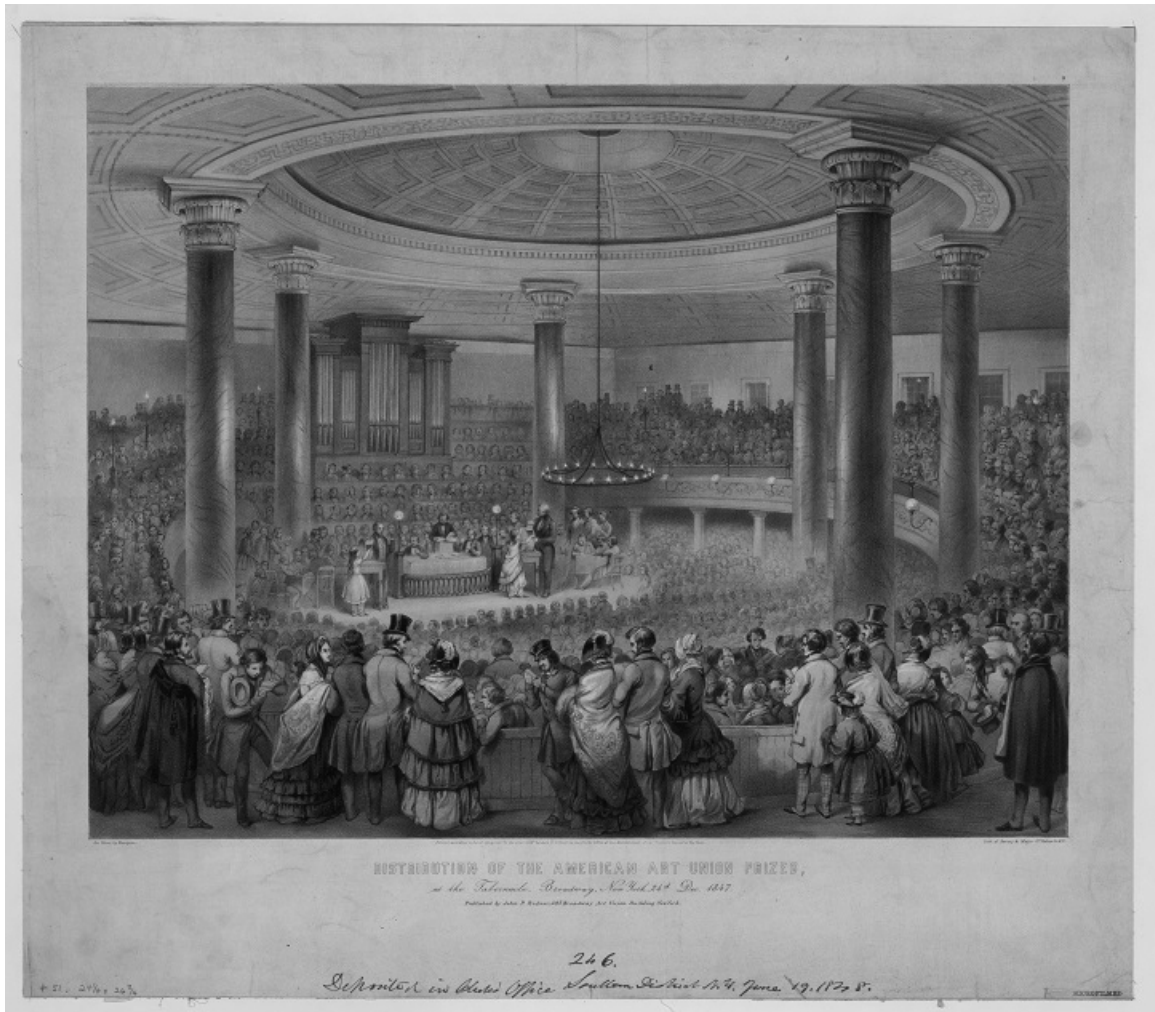


FIGURE 2.4: The interior of the Broadway Tabernacle, New York, NY, 1848. SOURCE: Library of Congress. No know restrictions on publication.

regular concerts, lectures, debates, and readings in its main sanctuary (Burr 1905). As Loveland and Wheeler (2003) note, “The church’s founder, Russel H. Cornwell, justified the Temple’s sponsorship of ‘entertainments’ on the grounds that the church should use ‘any reasonable means to influence men for good’.”

Early twentieth century church building manuals demonstrate that structures like the Baptist Temple occupied a solid place in Protestant thinking about

church organization. A 1928 manual remarks that “the church has passed beyond the experimental stage in gymnasium work,” and, “Bowling alleys have been found very popular. Some churches have difficulty in finding sufficient hours to schedule the alleys” (Conover 1928). Even planning for cutting edge communication technology enters the discussion, “A picture booth for a moving picture machine and stereopticon must be considered when planning the parish hall or gymnasium. Several rooms should be equipped with shades so that they may be darkened during the daytime. Provide convenient storage space of the visualization equipment” (Conover 1928). In 1948, another manual states, “Swimming is an increasingly popular form of recreation. In one institutional church in a crowded city section, the total attendance in the swimming pool in one week was 1,400” (Conover 1948).⁵

2.5 Twentieth Century Developments

While more formal Gothic designs became more popular after WWI, American Protestants continued to build large worship spaces that maximized the ability

⁵ Of core importance to churches was the religious education and socialization of children. In a church building manual the author says, “The Church does not wish to or need to compete with either the theater or the public schools, but the Church has successfully used and adapted other techniques learned from secular education” (Conover 1948). At the 1893 World’s Fair in Chicago, a model of the winning Sunday school design from an international competition was constructed. It was round and dominated by a large central area for large group gatherings. The central area could be partitioned into separate ‘departments’ – primary, junior, intermediate and secondary. Each department had small separate graded spaces. Another shows floorplans of several church Sunday schools, which could accommodate several hundred children in large-group and graded space (Lawrance 1911). Many churches had separate spaces for youth groups and youth churches, demonstrating that ministry targeted at young people as a distinct demographic predates the youth ministries of the post-WWII era.

of participants to hear and see the drama unfolding on the stage. The Angelus Temple in Los Angeles, California stands as perhaps the finest witness to the continuing attraction of the huge, multipurpose church to Protestants. The Angelus Temple housed prayer rooms, broadcast facilities and venues from which to run social-service agencies. The desire to reach the masses with the gospel message and to provide a mission outpost to influence the broader society stood behind the Temple's founder Aimee Semple McPherson (Sutton 2007). The sanctuary, built in 1923, is pictured in Figure 2.5. Angelus Temple continued one of the dominant forms of Protestant sanctuary design – a large, multi-galleried worship space to accommodate thousands that still maintains an intimate focus on the stage.

A clear ecclesiological vision anchored Angelus Temple and other similar congregations. Historical sources document the enduring evangelical concern for 'mass evangelism'—reaching as many people, by whatever means possible, with the gospel message of salvation in Jesus Christ in order to bring about the redemption of American culture, which many evangelicals felt was slipping into chaos. A commitment to mass evangelism, facilitated by a typically more congregation- (as opposed to denomination-) centered polity, led evangelicals to gravitate towards building large meeting spaces, which allowed a large number of people to gather to hear a message in a relatively anonymous setting. They stressed the importance of using contemporary forms of music and communication to maintain relevance, and they targeted programs and services to expressed needs. Not all evangelicals



FIGURE 2.5: The interior of the Angelus Temple, Los Angeles, c.1930. Source: International Church of the Four Square Gospel, Heritage Division, used with permission.

embraced mass evangelism, nor did they uniformly endorse the creation of large, contemporary, needs-oriented churches, but mass evangelism – building large, visible churches, and using a variety of ‘attractions’ to bring people to the congregation – formed a dominant refrain in American Protestantism from at least the mid-nineteenth century onwards, more than 100 years before Saddleback and its contemporaries appeared on the scene.

The influential Christian social commentator Josiah Strong gave voice to a

vision of the church whose marching orders are to 'save souls' and reverse the moral decay of America through the healthy spiritual and physical growth of adults, children and families.⁶ In 1893, Strong wrote what could easily have come from a modern church marketing manual,

The question then becomes this: Will the church enlarge her conceptions and activities to the wide measure of her mission and apply the principles of the Gospel to the entire life of each community? Here is the opportunity of the ages for her to gain a commanding influence over the lives of the multitude and fashion the unfolding civilization of the future. (Strong 1893)

Strong, like many others of his day, realized that the center of gravity of American culture was rapidly shifting to large cities. However, the city conjured many negative images in the imagination of many nineteenth century evangelicals. Even the prominent Chicago urban revivalist Dwight L. Moody expressed these sentiments when he said, "the gulf between the church and the masses is growing deeper, wider, and darker every hour" (quoted in Utzinger 2006). But Strong criticized evangelicals for their fear of the city. He viewed the rise of urban para-church ministries like the YMCA/YWCA as indicative of the local church's failure to develop an effective strategy to reach the masses. Billy Sunday, a prominent American revivalist, controversial and theatrical in style, argued along similar lines,

Every preacher is striving to get the multitude to come to church. If not

⁶ Strong's popularity as a social commentator was eclipsed only by Harriet Beecher Stowe (Utzinger 2006).

mass evangelism, then why church mass meetings? In sport we appeal to the masses, in baseball, football, prize-fights, theaters...The Church will never reach the spiritual position held fifteen years ago until it returns to mass evangelism. (Sunday 1933)

Accompanying Sunday's comments in the *Moody Bible Institute Monthly*, another author remarks, "Where the revival, or 'mass evangelism', is discounted by pastor or church...this results in a cold church formalism which will preclude any kind of evangelism or spiritual religion" (Benson 1933). These quotations echo the chorus of revivalism sung throughout nineteenth and early-twentieth century American evangelical religion. Here the refrain of revivalism urged evangelicals to see the city as an opportunity for outreach and expansion. The church represented the key institution in this clarion call to reach the cities for Christ.

During his years in London, Dwight L. Moody attended the Metropolitan Tabernacle. Spurgeon's church left a deep impression on Moody and exerted an important influence on fundamentalist ecclesiology. In a 1934 article in the *Moody Bible Institute Monthly* commemorating the centenary of Spurgeon's birth, Rev. W.H. Hockmann extols the ministry of the Metropolitan Tabernacle,

The Tabernacle has been a bee-hive of activity. Overflowing in all directions, not less than thirty centers of Christian ministry were established in different parts of the London area, with some eight thousand children enrolled in various Sunday Schools. A colportage association was formed [for

the distribution of tracts and religious materials], alms houses sustained, orphanages for both boys and girls established and the world renowned Pastors College brought into being. Never did the crowds of eager listeners cease to gather at the Tabernacle doors long before the hours for Sunday services. (Hockmann 1934)

Yet in the midst of this popularity,

No man was keener to detect its [modernism's] subtle sophistries, or sense its deadly perils. While his particular forte was evangelism ... nevertheless he waged a valiant and uncompromising warfare [against modernism] The Metropolitan pulpit never ceased to thunder against compromise with evil, or unbelief or modern thought. (Hockmann 1934)

This chapter leaves little doubt that the eighteenth century emphasis on reaching the masses remained alive and well in the early part of the twentieth century. Seventy-five years later, Spurgeon's 'megachurch' continued to occupy an important place in the evangelical Protestant imaginary.

Temple Baptist Church, in Detroit, Michigan – one of the fastest growing and wealthiest pre-WWII cities in the United States – exemplifies the strong connections between revivalism and the construction of large, elaborate churches. By 1937, the church had moved into a 5,000-seat sanctuary, which was filled to capacity by their pastor, the famous Texas revivalist J. Frank Norris (who served as senior pastor of both First Baptist in Fort Worth, Texas and Temple Baptist in

Detroit and commuted between the congregations). With 5,000 people in attendance at Sunday school in 1955, many considered it the largest church in America (Towns 1969). After relocating to the Detroit suburbs in 1968, they built a 4,500 seat-sanctuary. Of this structure, one admirer remarked, "The four million dollar building is a testimony to the desire on the part of the people to honor God with the very best...The carpeted aisles and blue velvet seats give an atmosphere of luxury." Dr. G. B. Vick (who served as pastor in Norris's absence and would eventually succeed him as senior pastor), pointed out, the luxurious surroundings do not indicate a movement away from their simple, revivalist roots, "If this church gets too fancy, I'll sprinkle sawdust down the aisle and remind the folks that this is an evangelistic tabernacle" (Towns 1969). Vick's remarks remind us that the megachurches of the early 1970s continued to invoke the legacy of revivalism and mass evangelism as central components of their identity.

A move to reach the urban masses raised the issue of the degree to which cultural accommodation should occur within churches. Leaders tempered the focus on mass evangelism by concerns about apostasy – churches must not attempt popularity without proper theological integrity. A letter in response to Billy Sunday's call to mass evangelism complained, "The argument about mass-appeal of sports, theatres, and politics, is much out of place when applied to religion. Those things have to do with the carnal and physis, not the spiritual" (Sloan 1934). Some worried that mass evangelism and using popular methods to appeal to the masses would cause the church to lose core beliefs, a trap into which so-called liberal or

modernist churches had fallen. In spite of these concerns, evangelicals remained convinced that firm conviction could overcome any of the inherent problems with appealing to the masses. The editor of *Moody Monthly* remarked, "There is still something to be said for mass evangelism, although like many other things it suffers from 'misuse'. The appeal to the 'carnal and physis' is the common appeal of the gospel, and therein it demonstrates its power..." (Sloan 1934). In an article about church publicity, the managing editor of a Christian magazine wrote,

The church needs promotion. We need to forward our work by means of publicity. It is vitally necessary for us to adapt modern methods to our advertising program. Adapting modern methods of promotion does not mean that we must be modernistic in doctrine. We can apply sane, up-to-the-minute promotional principles and suggestions, and keep our message sound and evangelical. The primary purpose of the church is to proclaim the message of God's grace and win people to a saving knowledge of Jesus Christ. *In order to do this it is necessary to utilize every means at our disposal.* (Engstrom 1945, emphasis in original)

Fears about cultural accommodation leading to theological apostasy long kept many evangelicals away from ministry to the urban masses. But a pragmatic appeal to doing whatever it takes to win souls, coupled with separating cultural relevance from theological integrity, remained an important counter argument throughout the twentieth century. A writer in *Moody Monthly*, born by patriotism and post-war optimism captured this spirit:

The...guarantee that our flag may not lose its meaning is to win America for Christ and the Church....Christians must begin to invite the young and old to church....Every Christian must get out and touch American life with Christ's saving power if the millions of unchurched children, young people, and adults of our nation are to be won. (Hanson 1945)

In a similar vein, Dr. Dallas Billington, pastor of the Akron Baptist Temple, with an average Sunday school attendance of 5,762, said, "Our aim is to win a soul, not false advertising. We will do anything possible to get people to attend, and present the gospel" (Townes 1969). This appeal to pragmatism was seductive in a nation steeped in the myth of the self-made man.

2.6 Conclusions

The end of the Second World War brought with it the prospect of millions of soldiers returning to America to settle into families, homes, and churches. Suburbs experienced explosive growth, the government poured money into building thousands of miles of highways linking residential communities to factories and other employment centers, the cost of owning and operating a car dropped considerably, and large retail shopping centers began to dot the suburban landscape. The church construction business also flourished. By 1955, *Life* magazine reported that \$750 million worth of church building construction had begun that year (\$6.6 billion in 2014 dollars); Denver, CO alone saw the birth of 45 new congregations (Staff Writers 1955).

A buoyant economy and an exploding urban population meant new congregations, some of them very large, began to pop up everywhere. Elmer Towns, who from 1969 to 1974, produced a list of the ten largest Sunday schools in America, documented very large Baptist churches in Hollywood, Florida; Riverdale, Maryland; Akron, Ohio; Hammond, Indiana; Denver, Colorado; and Van Nuys, California (Towns 1969, 1972, 1973, 1974). It was easy to mistake the sudden appearance of large congregations across the United States as the birth of a new kind of institution. However, the bulk of the evidence demonstrates that the megachurch enjoys a long historical precedent among Protestants. The seventeenth, eighteenth, nineteenth and early twentieth centuries gave birth to a number of large, multipurpose churches, often built around a popular preacher. These congregations employed the latest technology to reach as many people using all available means. The cultural fuel for the creation of these kinds of churches came primarily from a desire to reach the 'unchurched' with the salvation message, to keep society from falling away from its Christian foundations, and, ultimately, to redeem the culture for Christ. The rapid urban and suburban expansion of the United States, which had continued apace since the early eighteenth century and exploded after WWII, provided the fuel for these expansionist dreams.

The 1970s and 1980s brought the right mix of factors to put very large, Protestant congregations on the broader cultural stage. At the beginning of the 1980s, the media, pastors, city planners and ordinary citizens cemented the image

of the megachurch as a new made-in-the-USA religious institution. But those who see the megachurch as a 'modern invention' without a long history are wrong. Protestants had long built large, multi-purpose buildings that housed a host of religious and worldly services under one roof. Few have stopped to recognize the strong historical precedent for what we now term the megachurch. As a Protestant impulse, the megachurch goes back to the beginnings of the Reformation in Europe.

The media does not bear singular responsibility for the historical amnesia about the megachurch. Many insiders share equal complicity. By the 1970s, a group of large-church pastors, including James Kennedy, Bill Hybels, and Rick Warren, already had a well-developed sense that their form of congregational organization lacked precedence. And while megachurch promoters went out of their way to dispel media stereotypes of these churches, they did not argue with the idea that their institutions lacked historical continuity. The pastor of a large church in Los Alamitos, California told a reporter,

The contemporary perspective is that church isn't for the weak, infirm, unintelligent. It's relevant to the young, active mover-shaker....That means more of a 'one-stop, supermarket approach' to spirituality...People expect spick-and-span nurseries, drug and alcohol counseling, even Monday Night Football events. (Gallegos 1990)

During the 1980s and 90s, middle class America experienced important social-

structural shifts that privileged large churches. In particular, the increase in female labor force participation put a time squeeze on the discretionary time enjoyed by families, and made large, well-staffed congregations appealing (Chaves 2006). Nevertheless, while changing family dynamics and favorable development processes aided the popularity of megachurches in America, we make a mistake if we confuse their increasing prevalence as “a new social form.” They are not a new religious phenomenon (let alone, as Peter Drucker called them, one of “the most important developments of modern [i.e 20th century] Christian history”). They represent an enduring model of ecclesial organization in Protestantism, stretching back to the early seventeenth century. Situating megachurches in their proper historical context should help us avoid both starry-eyed wonder at these spectacular congregations and curmudgeonly critiques of them as flash-in-the-pan organizations with little staying power.

Size and member participation in voluntary associations

3.1 Introduction

Sociologists have theorized that group size and member participation share a close link (Blau 1970; Caplow 1957; Terrien 1959; Tsouderos 1955). Simmel (1902) noted this connection more than a century ago. He argued that relatively small groups are more effective at reinforcing commitment and conformity. Small groups can use a wide array of relational pressures because face-to-face interaction between all members of the group is possible. As groups become larger, the social ties between group members weaken, and commitment and conformity become more difficult to enforce. The organization can no longer exercise the same level of control over individuals. According to this theory, by their very nature, large organizations create a less involved, more heterogeneous membership. Applied to churches, Stark

and Finke (2000) argued that social network density declines as congregations get larger, which in turns results in fewer direct mechanisms for promoting commitment, and participation declines.

In spite of this strong theoretical link between size and member participation, past research has failed to reveal clear and consistent patterns. To date, a negative relationship between size and attendance has not been established using nationally representative data on American congregations. Only a handful of studies collect individual self-reported frequency of attendance and a measure of congregation size, obtained from the respondent or the respondent's congregation. These studies have often relied upon small samples and/or samples of one religious sub-group, and, they have produced variable results. One study reported no difference in the rates of attendance between individuals who attend churches with fewer than 100 in attendance and more than 1,000 in attendance (Stark 2008, 46–48). Using the US Congregations and Life Survey (USCLS), another study found that attendance was not significantly related to size (Dougherty and Whitehead 2011). Using the USCLS poses a problem. While a nationally representative sample of congregations, individual-level data are obtained after a worship service and therefore underrepresent the number of less-frequent attenders.

Several related studies use participation rate rather than attendance rate to operationalize member involvement. Participation rate is measured by a (usually) denominationally collected report of each congregation's average weekend

worship attendance and total official membership. In order to obtain the participation rate, the number of attenders is divided by the total membership. The first of these appeared in *Administrative Science Quarterly* in 1971. This study of 157 Lutheran Churches in South Dakota found a modest negative relationship between size and participation rate (Wilken 1971). *A priori*, the relationship was predicted to be much stronger. The author speculated that other factors, particularly the age composition of the congregation, moderated the size-participation relationship. The second study appeared nine years later in *Social Forces* and focused on 58 Protestant churches in Indianapolis. Here, the investigators again found a negative relationship between size and participation (Hougland Jr and Wood 1980). A study of 483 Nazerene congregations found that the ratio of membership to attendance was negatively correlated with size, which means that larger churches have members who are less likely to attend regularly (Pinto and Crow 1982). Two more recent congregational-level studies of Southern Baptist congregations revealed a negative relationship between size and participation rate (Dougherty 2004; Finke 1994).

Studies that use participation rate bear some important limitations. Church membership does not have the same significance in all congregations and traditions. Some congregations stress the importance of formal membership, while others downplay its significance. In addition, some have a large number of 'nominal members' – members who live in other places and retain their memberships (stu-

dents away at college and 'shut-ins' often fall into this category). Therefore, lower levels of participation may simply reflect the fact that a particular congregation has a large non-resident, student, and/or elderly population. By a similar logic, higher participation rates may result if a congregation does not stress the importance of formal membership. Therefore, using membership counts to calculate attendance rates provides an unreliable estimate of the relationship between congregational size and the propensity for individuals to attend regularly.

This research has contemporary significance given two major, related trends in American religion: there is an increasing concentration of people into very large churches (Chaves 2006, 2011) and megachurches have rapidly proliferated since the 1970s (Thumma and Travis 2007). Simmel's theory suggests that much of the 'action' between size and attendance will occur in very large churches. Because large churches are relatively rare, it is difficult to test this relationship because samples of churches contain few very large congregations.

Other research examines whether size is related to the degree of support an individual gives to and receives from their congregation. While these studies are measuring different outcomes, they bear mentioning because, according to the theory, participation rates are intertwined with social support. Again, these studies have produced mixed results. For instance, one study found that size was negatively related to an individual's perceived sense of social support (Ellison et al. 2009); a similar finding was reported among Roman Catholics, where satisfaction

levels were higher among individuals in smaller parishes (Peyrot and Sweeney 2000). In contrast, other research suggests that individuals who attend churches with 1,000 or more attenders have *more* friends in their congregation than those in small churches (Stark 2008, 46–48). Another study suggested that congregational size was *not* related to the likelihood of an individual providing social support (McClure 2013).

To summarize, there is a strong theoretical link between size and attendance but the research that has examined this relationship has significant limitations. Data quality issues abound: attendance rates are often derived from membership counts, some studies only examine a single denomination, others rely upon studies that over represent regular attenders, and most studies contain few large churches, which makes patterns hard to detect. The goal of this research is to provide a clearer picture of the empirical relationship between size and attendance using the best-available data and state-of-the-art modeling techniques. I will use multi-level, nationally representative data that spans multiple religious traditions to measure both size and attendance at religious services. I will also take advantage of advances in Bayesian hierarchical linear modeling to estimate how this relationship varies across groups.

3.2 Data and Methods

This research draws upon combined data from the National Congregations Study and the General Social Survey. The GSS is a representative sample of the non-

institutionalized, adult population in the US. If the GSS respondent indicates they attend religious services once a year or more, the GSS asks for the name of their congregation, which then forms a nationally representative sample of congregations (Chaves 2007; Chaves et al. 1999). The NCS was conducted in 1998, 2006 and 2012 and gathers a representative snapshot of congregations in the United States by interviewing a key informant from the congregation nominated in the GSS, most often the senior pastor. The NCS was not conducted in 2000, however the GSS asked respondents to report the size of congregation they attend. The NCS response rates are 80%, 78%, and 73% for 1998, 2006 and 2012; the GSS response rates are 76%, 70%, 71%, and 71%, for 1998, 2000, 2006, and 2012. Excluding congregations from non-Christian religious traditions, the data contain 1,608 cases from 1998, 1,319 cases from 2000, 1,684 cases from 2006, and 1,558 from 2012, for a total N of 6,169. The NCS and GSS are linked, which allows the matching of individuals with their congregation's characteristics.

In this study, I conceptualize congregational characteristics as individual-level data (so, for instance, we can think about a hypothetical respondent in this survey as a white, married male who attends an urban congregation with 500 regular adult participants). Repeat nominations of the same congregation occur. 89% of the congregations received a single nomination, 8% received nominations from two GSS respondents, and 3% received nominations from 3-7 respondents. I treat duplicate nominations as independent cases, which, because the GSS employs a

geographically clustered sampling procedure, may not be completely valid, but the anticipated impact of the study design is small.

Member participation is operationalized as a binary variable that indicates respondents who report attending worship services at their congregation 'nearly weekly' or more. Weekly worship service attendance is a standard measure in the literature and is one of the few congregational participation variables available in the GSS. I tested specifying the model with an ordinal outcome variable, which retains all the categories of weekly attendance, but the substance of the results did not change.

The key independent variable in this analysis is the number of regular adult participants in the congregation as reported in the NCS by the key informant. Specifically, respondents are asked to estimate the average number of attenders at all of the congregation's regular worship services.

Table 3.1 summarizes the number of adults in the congregation that each GSS respondent attends, as assessed by key informants. As these data show, congregation size is highly skewed. The median respondent attends a congregation of 370 people, the mean, 1,035. The size of congregation that an individual attends has increased over the 14 years of the NCS. In addition, 17 respondents reported attending congregations with 10 or fewer regular adult participants. I removed these cases from the analysis because they were exerting excessive leverage on the regression results. The NCS has good coverage of large congregations, 279 have

Table 3.1: Number of regular adult attenders in the congregation attended by the respondent, weighted to be representative of all attendees.

| | Median | Mean | Std. Dev. |
|-----------|--------|------|-----------|
| All years | 370 | 1035 | 1717 |
| 1998 | 350 | 918 | 1347 |
| 2006 | 360 | 948 | 1478 |
| 2012 | 400 | 1281 | 2266 |

Source: NCS 1998, 2006, 2012

attendance between 2,000 and 4,999, 100 have attendance between 5,000 and 9,999, and 16 have 10,000 or more attenders.

There are a large number of cases where the key-informant report of congregational size is missing. Rather than drop these cases, I use an imputation strategy, outlined below, to retain these cases and increase the predictive power of the model. Key informant reports of size were missing when the congregation named by the GSS respondent may have chosen not to complete the NCS, the NCS informant failed to report the size of their congregation, or, the case came from 2000, where the GSS respondent was asked for an estimate of their congregation's size but there was no NCS conducted in that year. In total, this procedure adds 2,310 cases, 185 from the 1998 GSS, 1,319 from 2000, 294 from 2006, and 144 from 2012. The GSS does not ask the same 'size' question as the NCS. The GSS asks, 'About how many members does this congregation have?' Past research has shown that this question and the NCS 'how many regular adult attenders' question are strongly correlated, with a correlation coefficient of 0.7 when both variables are logged. In this analysis, I consider the key-informant report of size as

more accurate than the GSS respondent's estimate. NCS respondents are generally senior clergy with an intimate knowledge of the congregation. But, in cases where the NCS report of size is missing, the GSS congregational-size variable is used to model likely values that a NCS informant would have given, if the response existed.

3.2.1 Controls

In this analysis, I introduce controls for factors that may mediate the relationship between size and member participation. We know that women, married people and those with children attend services more frequently. Large churches typically offer more programs for children and families, something that may differentially attract women (who are often the primary care-givers of children), married couples and those with children at home. Gender is a binary variable coded 1 for female and 0 for male; a child present in the home is coded as 1 with no children present coded 0. Marital status is a categorical variable coded as never married (reference), married, and divorced/separated/widowed. Large churches are predominantly an urban phenomenon and rural location is coded as 1 with urban locations coded as 0. Age is introduced as a continuous predictor (centered at the grand mean) as younger people attend church less frequently but when they do attend, they favor larger churches (Eagle 2012).

Some have suggested that more time-pressed individuals may gravitate to larger churches because they offer greater flexibility in terms of the degree of

involvement (Chaves 2006; Eagle 2012). From other research we know that the amount of discretionary time is negatively correlated with higher education and higher income (Jacobs and Gerson 2004). Educational attainment is added as a categorical variable coded as less than high school (reference category), high school or GED, and bachelor's degree. Family income is a continuous variable that is standardized, centered and expressed in constant 2006 dollars.

It is plausible that congregations with more per-capita resources are able to provide better programming and support, which leads to higher participation. It could also be true that adding staff may compensate for lower participation levels. To explore this relationship, I create a variable that measures the staff-to-adult-attender ratio. To construct this variable, I add up the number of full-time and part-time staff (with each part time staff counting for one half a full time staff) and divide it by the number of regular adult attenders. I remove the cases where this ratio is greater or equal to .10 so as to limit the potential impact of outliers. This variable is not available in the year 2000 because the NCS was not conducted in that year. Missing values are imputed.

Patterns of religious attendance vary considerably by religious tradition. Table 3.2 shows that weekly attendance is highest among Black and Conservative Protestants, and much lower among Roman Catholics and Mainline Protestants. Churches are also structured differently. Roman Catholics attend larger churches with smaller budgets and fewer staff than their Protestant counterparts.

Table 3.2: Differences in key characteristics by religious tradition, weighted to be representative of all attendees.

| | Roman Catholic | Conservative Protestant | Black Protestant | Mainline Protestant |
|--|----------------|-------------------------|------------------|---------------------|
| N | 1,239 | 1,575 | 540 | 881 |
| Number of Adults, Mean | 1,748 | 768 | 572 | 396 |
| Weekly Attender % | 37.0 | 49.6 | 45.8 | 31.6 |
| Number of adults per full-time-equivalent staff ¹ | 80.4 | 43.1 | 44.9 | 38.8 |
| Annual Budget per Adult | \$751 | \$1,750 | \$1,542 | \$1,590 |

¹ Number full-time staff + 0.5 × Number of part-time staff

Source: NCS and GSS, 1998, 2006, 2012

Black Protestants, while they attend churches with similar budgets as Conservative Protestants, employ far fewer full-time staff per member. Because size, staffing, and congregational resources impact the kinds of programs and services a congregation offers, it is likely that the size-attendance relationship will vary among religious traditions. Rather than simply use indicator variables for religious tradition, respondents are clustered in religious traditions and a hierarchical linear modeling (HLM) approach employed. A control variable approach cannot deal with heterogeneity between groups, whereas an HLM framework can.

Lastly, I add three dummy variables to indicate the survey was done in 2000, 2006, or 2012 (1998 is the reference year). In 2000, the NCS was not conducted and estimates of size are only available from the GSS. The strategy employed to deal with this issue is outlined below. There is very little missing data on all controls except for income and staff ratio. The two cases with missing data on age and the single case with missing data on marital status were dropped. With income and

staff ratio, a model-based imputation strategy outlined by Tanner and Wong (2008) is employed to estimate these values.

I run three models: one without controls included, one with all the controls save staff ratio, and a third with all the controls including staff ratio. I tested running a Bayesian lasso model, where a shrinkage parameter reduces potential colinearity between the predictors (Hans 2009). When run this way, the model did not produce substantively different results, so I run the models without a shrinkage correction.

3.2.2 *Bayesian modeling*

In this paper, I use a Bayesian estimation technique to produce parameter estimates and credible values for those estimates. Bayesian statistics, like its classical or frequentist counterpart, requires the analyst to specify a meaningful likelihood function from which the data under consideration are generated. The main difference with Bayesian statistics is that the analyst must also specify a prior belief about the model parameters (before any data is observed), which is then updated in light of observed data.

In classical statistics, the goal is to estimate the value of a population parameter, which is assumed to have a true, but unknown value. Using some data and a likelihood function, we can estimate this parameter. However, given that we have incomplete data about the population, there is uncertainty in our estimate. Uncertainty in our estimate is quantified using a confidence interval. A confidence

interval states that under the present sampling conditions, 95% (or whatever level of confidence we specify) of the time this range of values will contain the true parameter of interest. There is, correspondingly, a 5% chance that the interval does not contain the parameter. Confidence intervals, even though they are often misinterpreted this way, do not indicate that the true value of the parameter has a certain probability of being in the confidence interval given the data.

Bayesian statistics start with the assumption that the unknown quantity of interest is a random variable rather than a fixed value. The goal is to produce an estimate of the credible values of this unknown variable, given our prior knowledge and some observed data. Prior beliefs are quantified using a probability distribution. Using Bayes' rule, our prior beliefs are combined with our likelihood function and our data to produce a posterior distribution. The posterior distribution (or just the posterior) is an estimate of the credible values of the parameter(s) of interest given our prior beliefs, the likelihood and our data. Because the unknown parameter(s) is a random variable rather than a fixed quantity, uncertainty is quantified in terms of credible intervals. Credible intervals specify the range of parameter values which contain 95% of the density of the unknown random variable.

To take a simple example, say we want to estimate the average height of a large population by sampling a group of randomly selected individuals. These data are assumed to be generated from a normal distribution. A frequentist would measure a sample of people's height and, using the normal likelihood, calculate

a confidence interval – say 65–75 inches. The confidence interval indicates that there is a 95% chance that the mean of this sample will fall between 65 and 75 inches. Likewise, there is a 5% chance that the confidence interval doesn't contain the mean at all.

In a Bayesian analysis, we also assume a normal likelihood function. But we specify a prior belief, for example, that the average height of our population is normally distributed with a mean of 68 inches and that 95% of the population falls somewhere between 20 inches and 110 inches. Given what we know about people's heights, this gets us in the right ballpark, but it is pretty vague. We then collect the data and use that information to update our prior beliefs. This information might lead us to calculate a credible interval of 65–75 inches. In this case, we conclude that 95% of the population is covered by this interval.

One of the major differences with Bayesian statistics involves the use of prior beliefs in the model. Critics claim that this unnecessarily allows the analyst's beliefs to influence the model. To circumvent this critique, many Bayesian analysts employ what are called non-informative priors. These are prior beliefs that are so vague that they are quickly overwhelmed by the data and exert little to no impact on the posterior distribution. Normally, priors are chosen that are conjugate, which states that they are in the same distributional family as the posterior, or semi-conjugate, which means that the prior for one parameter (e.g. the mean) is in the same distributional family as the posterior conditional on the other

parameters.

Bayesian models are usually estimated using various iterative techniques like Gibbs sampling. One key advantage of Bayesian techniques is that they produce a full posterior distribution of credible values of the parameters, rather than just a point estimate plus a confidence interval. This allows for a greater degree of flexibility in reporting parameters as we can easily construct credible intervals around calculated quantities (such as odds ratios). These models also allow for a much more flexible range of data generating functions to be employed.

3.2.3 *Modeling strategy*

I run a binary logistic regression to estimate the latent probability, p , that an individual attends worship services weekly or more and test whether it covaries with the size of the congregation they attend, net of other covariates. Initial exploratory data analysis using non-parametric regression revealed a possible non-linearity in the relationship between size and attendance. I add a squared size term to the model to accommodate this feature of these data. Other studies have revealed a non-linear relationship between size and organizational participation for industrial organizations (Reiter et al. 2005). Because congregational size has such a wide range, I take the natural logarithm of the size variable, \lognum , to compress the scale and improve the ability of the model to estimate the regression coefficients. \lognum is mean-centered, which reduces the correlation between \lognum and \lognum^2 and leads to more reliable estimates of the linear and non-linear com-

ponents of the effects (Bradley and Srivastava 1979).

In order to deal with the difference between traditions, but still retain all of the cases in a single model, I utilize a hierarchical linear model that clusters individuals within traditions. This model contains a random intercept for each religious tradition and a random slope on \lognum and \lognum^2 . Because the control variables are either not of central importance or not likely to vary among traditions, they are added as fixed effects, which also reduces the number of parameters to be estimated. The data are modeled as follows:

$$Y_i \sim \text{Bern}(p_i), \text{ where} \quad (3.1)$$

$$\text{logit}(p_i) = X_{i[j]}a_{[j]} + X_{i[j]}^2a1_{[j]} + W_{i,k}\beta_k + \nu_{[j]} \quad (3.2)$$

$$\nu_j \sim \mathcal{N}(V_0, \sigma_1^2) \quad (3.3)$$

$$V_0 \sim \mathcal{N}(0, 0.001) \quad (3.4)$$

$$a_j \sim \mathcal{N}(A, \sigma^2) \quad (3.5)$$

$$a1_j \sim \mathcal{N}(A1, \sigma^2) \quad (3.6)$$

$$A \sim \mathcal{N}(0, 0.001) \quad (3.7)$$

$$A1 \sim \mathcal{N}(0, 0.001) \quad (3.8)$$

$$\beta_k \sim \mathcal{N}(0, 0.001, 0.001) \quad (3.9)$$

$$\sigma^2 \sim \text{Gamma}(0.001, 0.001) \quad (3.10)$$

The dependent variable Y_i is an indicator variable that equals 1 when the respondent attends services weekly or more and zero otherwise. The vector p is the

latent probability that respondents attend weekly or more. The matrix W is the set of k group-level independent variables and the vector β_k contains the coefficients for each of these predictors. The vector $a_{[j]}$ contains the random effects of size for each j^{th} religious tradition, the vector $a1_{[j]}$ contains the random effects for size squared. A and $A1$ are the average effects across all four traditions. V_0 is the value of the intercept averaged over the four religious traditions and v is the vector of random effects for each j^{th} religious tradition. All of the variables are standardized to place them on a similar scale and to reduce colinearity between the predictors.

The fact that these data contain missing values of the key independent variable presents a challenge. However, when this variable is missing, there is an estimate of size given by the GSS respondent. In order to accommodate cases where NCS estimate is missing but the GSS estimate available, I employ a two-part modeling strategy. For cases where the NCS size variable, $lognum$, is available, the basic hierarchical linear model is employed. When $lognum$ is missing, I predict a the value of the NCS variable from the GSS variable. Predicted values of $lognum$ are drawn from the following predictive distribution:

$$lognum_h \sim \mathcal{N}(z_h, \sigma_{IMP}^2), \text{ where} \quad (3.11)$$

z_h and σ_{IMP}^2 are estimated from the following regression:

$$z_h = lognum_{GSS,h}\alpha_1 + \alpha_0 + \varepsilon_h, \text{ and} \quad (3.12)$$

h indexes all of the cases with non-missing values of the NCS variable.

In terms of prior choice, I utilize a non-informative semi-conjugate prior on

the intercept and all of the regression coefficients (normals with mean=0 and precision=0.001). For the precisions (the inverse of the squared standard deviation), I use diffuse gamma priors with $a=b=0.001$. The posterior distribution is estimated using a Gibbs sampler, run with 3 chains for 50,000 iterations, with the first 25,000 iterations removed for burn-in. Good mixing is observed in the chains and there is no evidence that the priors are informing the results in any significant way. The posterior density of p contains the uncertainty resulting from the procedures used to impute values of size and income.

The key goal of this analysis is to produce an estimate of the probability that an individual will attend services weekly in congregations of different sizes. To that end, I use the estimated coefficients from Equation 3.3 to estimate the predicted probabilities that an individual will attend weekly or more for congregations from 50 to 10,000 regular adult attenders. The relationship is then plotted for each religious tradition. From the posterior estimates of the coefficients, I report the mean value of the parameter of interest and the 95% credible interval. The credible interval indicates that 95% of the population is contained within this range of values. In the regression tables, credible intervals that do not contain zero are indicated in bold.

3.3 Results

Table 3.3 contains summary statistics of each of the variables used in the analysis. Approximately one-third of the respondents are affiliated with either a Roman

Catholic or White Conservative Protestant congregation, with 11% and 18% attending Black Protestant or White Mainline Protestant congregations. Attendance is highest for White Conservative and Black Protestants, with predicted probabilities of attending weekly of almost 0.50. For Roman Catholics and White Mainline Protestants, the probability is closer to 0.33. In keeping with the historic disadvantages faced by African Americans, marriage rates, income, and educational attainment are all lower among Black Protestants. White Mainline Protestants are older, and have higher incomes and levels of education than other religious groups (Keister 2011; Lehrer 2004; Lenski 1961).

In Figure ??, I plot the predicted probability of attending weekly against the natural logarithm of the number of adult attenders in the congregation estimated from the full sample and from samples restricted to each of the four major Christian religious traditions in the United States: White Conservative Protestant, White Mainline Protestant, Black Protestant and Roman Catholic. The underlying regression coefficients used to produce the plots are reported in Table 3.4. Figure ?? reveals both important similarities and some variation in the relationship between size and the probability of weekly attendance by religious tradition. Importantly, the model does not credibly predict a positive relationship between size and attendance for any of the groups.

Table 3.3: Descriptive statistics, weighted to be representative those affiliated with a congregation in the United States.

| | Full Study | Cons. Prot's | Black Prot's | Mainline Prot's | Roman Catholics |
|---|------------|--------------|--------------|-----------------|-----------------|
| Number of cases | 6,074 | 2,215 | 807 | 1,222 | 1,830 |
| <i>Dependent Variable</i> | | | | | |
| Attends weekly or more | 47.9% | 58.5% | 51.7% | 38.3% | 41.6% |
| <i>Size of congregation</i> | | | | | |
| # adult attenders, mean | 1,052 | 772 | 596 | 403 | 1,786 |
| # adult attenders, median | 370 | 175 | 110 | 200 | 1,100 |
| # adult attenders, max | 27,000 | 14,000 | 20,000 | 27,000 | 18,000 |
| <i>Congregational Affiliation¹</i> | | | | | |
| Roman Catholic | 36.2% | | | | |
| Conservative Protestant | 34.4% | | | | |
| Black Protestant | 10.9% | | | | |
| Mainline Protestant | 18.4% | | | | |
| <i>Demographics</i> | | | | | |
| Female | 59.9% | 59.9% | 68.5% | 58.7% | 58.0% |
| Age, mean, in years | 47 | 47 | 45 | 51 | 47 |
| At least one child at home | 35.8% | 37.7% | 38.2% | 31.2% | 35.6% |
| Lives in a rural area | 20.3% | 28.2% | 19.9% | 20.0% | 13.0% |
| <i>Marital Status</i> | | | | | |
| Never married | 19.5% | 16.2% | 33.5% | 15.3% | 20.7% |
| Married | 54.6% | 58.9% | 36.6% | 58.1% | 54.2% |
| Divorced, widowed, separated | 25.9% | 25.0% | 29.8% | 26.7% | 25.2% |
| <i>Educational Attainment</i> | | | | | |
| Less than High School | 13.7% | 13.0% | 18.6% | 5.3% | 17.2% |
| High school | 59.1% | 63.1% | 66.6% | 52.3% | 56.4% |
| Bachelor's degree | 27.2% | 23.9% | 14.8% | 42.4% | 26.4% |
| <i>Household Income²</i> | | | | | |
| Mean | \$51,586 | \$48,492 | \$32,927 | \$61,257 | \$55,257 |
| Median | \$39,695 | \$39,695 | \$24,543 | \$48,516 | \$42,130 |

Source: NCS (1998, 2006, 2012) and GSS (1998, 2000, 2006, 2012)

¹ People with "other" religious affiliations excluded

² Constant 2006 dollars

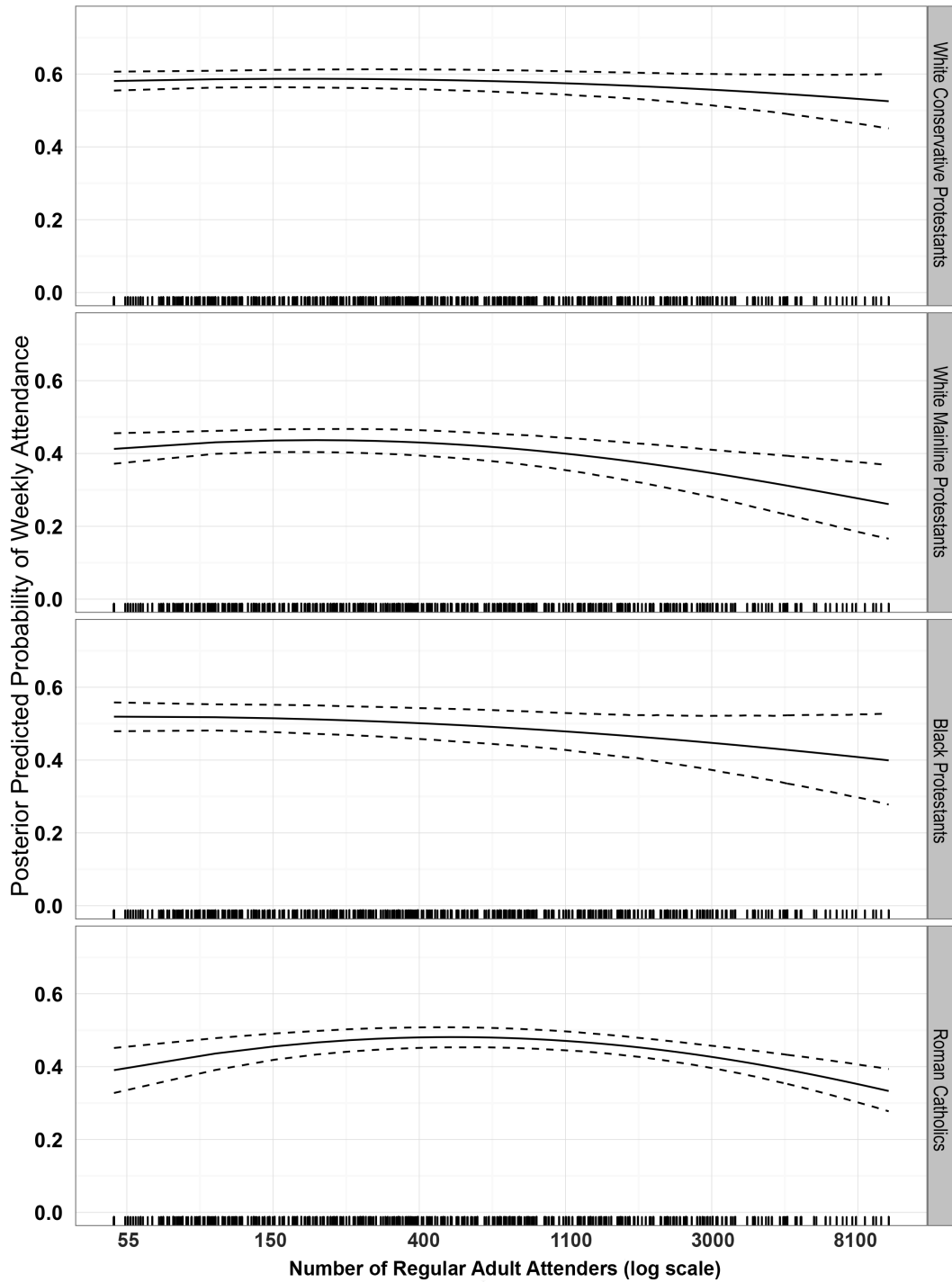


FIGURE 3.1: Plot showing predicted probability of weekly attendance by religious tradition by log of congregational size, no controls. Note: Each black tick along bottom indicates one case of that size.

Table 3.4: Logistic regression coefficients and 95% credible intervals predicting probability of attending weekly

| | Model 1 | Lower | Upper | Model 2 | Lower | Upper | Model 3 | Lower | Upper |
|--|---------------|--------|--------|---------------|--------|--------|---------------|--------|--------|
| <i>Intercepts</i> | | | | | | | | | |
| Group-level | 0.001 | -0.201 | 0.193 | -0.185 | -0.500 | 0.139 | -0.081 | -0.421 | .0246 |
| Cons. Protestant | 0.347 | 0.243 | 0.454 | 0.219 | 0.047 | 0.398 | 0.340 | .105 | 0.569 |
| Main. Protestant | -0.264 | -0.401 | -0.130 | -0.661 | -0.873 | -0.464 | -0.508 | -0.781 | -0.251 |
| Black Protestant | 0.024 | -0.138 | 0.184 | -0.039 | -0.264 | 0.203 | 0.052 | -0.255 | 0.362 |
| Roman Catholic | -0.093 | -0.207 | 0.022 | -0.260 | -0.457 | -0.060 | -0.211 | -0.486 | 0.059 |
| <i>ln(number of regular adult attenders)</i> | | | | | | | | | |
| Group-level | -0.010 | -0.225 | 0.183 | -0.031 | -0.307 | 0.257 | -0.019 | -0.278 | 0.247 |
| Cons. Protestant | -0.015 | -0.066 | 0.037 | -0.021 | -0.076 | 0.034 | 0.006 | -0.086 | 0.095 |
| Mainline Protestant | -0.044 | -0.133 | 0.039 | -0.036 | -0.130 | 0.050 | -0.021 | -0.173 | 0.129 |
| Black Protestant | -0.062 | -0.147 | 0.023 | -0.079 | -0.169 | 0.007 | -0.134 | -0.258 | 0.025 |
| Roman Catholic | 0.071 | -0.012 | 0.161 | 0.028 | -0.063 | 0.124 | 0.050 | -0.129 | 0.239 |
| <i>ln(number of regular adult attenders)²</i> | | | | | | | | | |
| Group-level | -0.040 | -0.231 | 0.152 | -0.031 | -0.307 | 0.251 | -0.059 | -0.323 | 0.203 |
| Cons. Protestant | -0.015 | -0.035 | 0.005 | -0.009 | -0.030 | 0.011 | -0.041 | -0.089 | 0.006 |
| Main. Protestant | -0.052 | -0.090 | -0.016 | -0.049 | -0.091 | -0.012 | -0.095 | -0.185 | -0.002 |
| Black Protestant | -0.018 | -0.053 | 0.016 | -0.007 | -0.041 | 0.028 | -0.019 | -0.083 | 0.059 |
| Roman Catholic | -0.070 | -0.104 | -0.038 | -0.052 | -0.087 | -0.018 | -0.081 | -0.159 | -0.005 |
| <i>Control Variables</i> | | | | | | | | | |
| Female | | | | 0.351 | 0.240 | 0.457 | 0.351 | 0.210 | 0.501 |
| Rural | | | | 0.100 | -0.041 | 0.241 | 0.026 | -0.161 | 0.218 |
| Age | | | | 0.034 | 0.030 | 0.038 | 0.036 | 0.031 | 0.042 |
| <i>Marital status (never married is reference)</i> | | | | | | | | | |
| Never Married | | | | -0.162 | -0.326 | 0.006 | -0.194 | -0.420 | 0.022 |
| Div/widow/separated | | | | -0.497 | -0.633 | -0.363 | -0.533 | -0.731 | -0.353 |

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| | Model 1 | Lower | Upper | Model 2 | Lower | Upper | Model 3 | Lower | Upper |
|--|---------|-------|-------|---------------|--------|--------|---------------|--------|--------|
| Child at home | | | | 0.157 | 0.029 | 0.283 | 0.184 | 0.007 | 0.351 |
| <i>Educational attainment (less than high school is reference)</i> | | | | | | | | | |
| High School | | | | -0.249 | -0.416 | -0.093 | -0.167 | -0.394 | 0.005 |
| Bachelor's degree | | | | 0.414 | 0.281 | 0.545 | 0.406 | 0.239 | 0.573 |
| $\ln(\text{HH Income})$ | | | | -0.002 | -0.065 | 0.063 | 0.045 | -0.039 | 0.129 |
| $\ln(\#\text{Staff}/\#\text{Adults})$ | | | | --- | --- | --- | -0.140 | -0.212 | -0.068 |
| Year = 2000 | | | | -0.036 | -0.194 | 0.120 | --- | --- | --- |
| Year = 2006 | | | | -0.030 | -0.175 | 0.107 | -0.067 | -0.219 | 0.094 |
| Year = 2012 | | | | -0.033 | -0.177 | 0.120 | 0.025 | -0.155 | 0.216 |
| σ | 0.176 | 0.104 | 0.340 | 0.244 | 0.148 | 0.474 | 0.534 | 0.210 | 1.890 |
| DIC | 18013 | | | 17546 | | | 4623 | | |

Source: NCS (1998, 2006, 2012) and GSS (1998, 2000, 2006, 2012)

Note: Coefficients in bold indicate a 95% credible interval that does not contain zero.)

For White Conservative Protestants, there is evidence of a small negative relationship between size and the probability of weekly attendance, but the relationship is not credibly different than zero. For White Mainline Protestants, the models demonstrate a significant, negative relationship. The probability of attending a congregation of 50 is 0.40, in a congregation of 1000, 0.32, in a congregation of 5,000, 0.30, and in a congregation of 10,000, 0.25—a decline of 38%. The pattern is similar among Black Protestants. In a congregation of 50 attenders, the probability of attendance is 0.52, in a congregation of 1,000 0.48, in a congregation of 10,000, 0.40, a total decline of 23%.

A different pattern emerges for Roman Catholics. There is initially a positive relationship between size and attendance, but then it becomes negative at around the 500-attender mark. For Catholics, size is positively related to the probability that an individual will attend weekly for congregations with fewer than 500 participants, increasing 18 percent from 0.40 for those attending a congregation with 50 participants to 0.47 with a congregation of 500 participants (where the probability hits its maximum). From there, the relationship is negative: for a congregation with 1,000 participants the probability of weekly attendance is 0.44, for 5,000 attenders, 0.40, and for 10,000, 0.33 a total decline from the peak of 38%.

I then consider whether any key respondent or congregational characteristics are mediating this relationship between the probability of weekly attendance and size. As shown both in Table 3.4 and Figure ??, in all cases, adding the con-

trol variables does little to alter the observed relationship between size and the probability of weekly attendance. In all models, the coefficients on A and $A1$ (the group-level coefficients on $\log num$ and $\log num^2$) remain significant and similar in magnitude.

3.4 Discussion and Conclusions

In this study, I seek to assess whether the size of congregation an individual attends and the frequency of attendance bear a negative relationship, whether this association varies by religious tradition, and if the social characteristics of the respondent mediate this relationship. The results show that there is a small negative association between size and attendance for White Conservative Protestants, but that it is not statistically significant. For White Mainline and Black Protestants the models demonstrate that a strong, negative relationship exists between size and the probability of attendance. For Catholics the model indicates a modest positive relationship initially, which then turns negative for congregations with more than 500 participants. The addition of control variables does little to change these patterns. Taken as a whole, these results fit within the generally accepted perspective that argues smaller groups have an easier time promoting group cohesion and participation due to the greater density of social relationships contained within smaller organizations. Congregational resources – at least in so far as the ratio of staff members to number of attenders capture resources – do not mediate this relation, which suggests that more general organizational dynamics are driving this

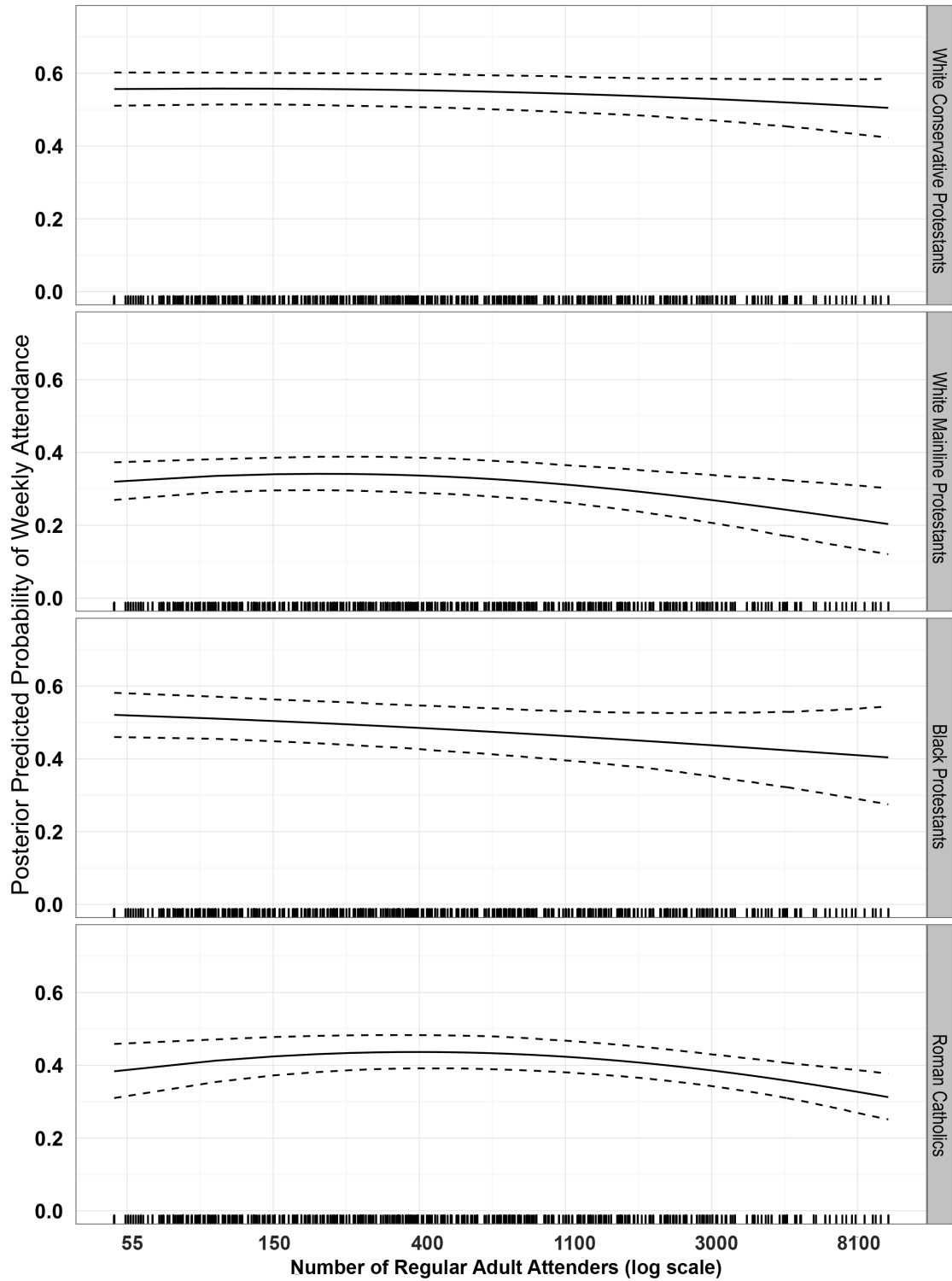


FIGURE 3.2: Plot showing predicted probability of weekly attendance by religious tradition by log of congregational size, controls (excluding staff ratio) included.

result.

Placed in the context of previous findings, what insights do these results reveal? First of all, there is no evidence that large churches either promote more frequent attendance or attract more frequent attenders. The only models that indicate a credible, positive relationship is among Roman Catholic congregations with 50 to 500 attenders. It is possible that this positive relationship is related to the fact that many small Catholic churches do not have a priest assigned to their congregation. Larger congregations are more likely to have a full- or part-time priest assigned to their parish, which may result in higher participation. However, due to a shortage of priests in the US, few parishes have more than one priest serving the congregation, which may be why the positive relationship is no longer observed past 500 participants. For all other cases, the models do not predict that size and attendance have a positive relationship. Among Conservative Protestants we do not observe a significant negative relationship between size and the probability of attendance, which this may suggest that these types of congregations are able to overcome the penalties associated with size. But overcoming the penalty associated with size is not the same as reversing the trend. It is also possible that White Conservative Protestant over-report their attendance more than other groups (Brenner 2011). This could also explain why the negative relationship is not statistically significant. Further research could explore how these congregations are able to reduce the negative impacts of size on the frequency of attendance.

It does not appear that congregational resources mediate the size-attendance relationship. This is the motivation behind Model 3 in Table 3.3, where I added number of staff per attender as a proxy for congregational resources. Staff are a key congregational resource. Most clergy spend a significant proportion of their time promoting community cohesion and creating opportunities for involvement. However, adding this variable did not change the overall relationship between size and attendance. In addition, the coefficient on staff was significantly negative. This is consistent with the possibility that congregations add staff in order to compensate for decreased participation among the membership, or that congregations with more staff attract people who are looking for a place where they can be less involved and see staff as a signal that paid, as opposed to volunteer, workers perform more of the core functions of the organization.

From this study, we cannot make definitive statements about the underlying causes for these patterns we observe. One likely pathway is that people who are less frequent attenders of religious services attend larger churches where they are more anonymous and do not face the social pressures to attend more frequently or social sanctions if they attend less frequently. Another possibility is that people who attend large churches find fewer personal connections in these environments and do not become as attached to the organization as they would in other settings. It may also be that in larger churches, because they offer a wider array of small-group programs, people, given limited discretionary time, might use small-group

attendance as a substitute for worship attendance. Unfortunately, neither the GSS nor the NCS provides additional variables to test this theory. In addition, the other major multi-level survey on congregations and participants, the US Congregations and Life Survey (USCLS), while it has more extensive information on congregational participation, is mostly made up of respondents who attend frequently. It does not contain sufficient variation to make strong claims about the impact of small groups on attendance (Dougherty 2004). Also, as is the case in the GSS, being a cross-sectional survey, we cannot use these data to determine if small group involvement, in and of itself, is related to an increase in attendance at services.

The fact that adding controls to the model did little to mediate the relationship between size and weekly attendance suggests that there is no significant relationship between any of the control variables and the size-attendance relationship. This finding is somewhat unexpected, because previous research has shown that size is related to SES (Eagle 2012) and SES is related to attendance (Schwadel et al. 2009). However, given these results, it appears that the size-attendance and SES-attendance relationships are independent from one another.

This research represents a major advance over previous studies because it combines information across the four major Christian religious traditions in the United States. Previous studies have focused on individual denominations or religious traditions. The fact that I found that the relationship between size and attendance is relatively consistent and negative across religious traditions raises ques-

tions about studies that identify a positive relationship between size and member participation. This research also allows for a more coherent theoretical framework to be applied to the connection between religious participation and congregational size. The fact that organizational characteristics vary considerably across religious groups, but the overall relationship between size and attendance is negative, suggests that more general organizational dynamics govern this trend. Simmel's basic insights about the relationship between size and member participation continue to provide a compelling conceptual framework to understand these social dynamics.

Mega, medium and mini: size & the socio-economic status composition of American Protestant congregations

4.1 Introduction

In 2008, in Orange County, California, the 20,000-plus attender, Southern Baptist, Saddleback Community Church hosted a presidential forum featuring Senator Barack Obama and his opponent, Senator John McCain. This event underscores the important role that large Protestant churches play in American social and political life. Because of their size, large churches are likely to exercise more influence than smaller churches. It is not accidental that a 20,000-attender church hosted a presidential forum, rather than a coalition of 100, 200-attender churches. As one researcher remarks, “one 2,000-person church is easier to mobilize for social or political action than ten 200-person churches, a politician is more likely to address

one 2,000-person church than ten 200-person churches, and the pastor of one 2,000-person church probably gets an appointment with the mayor more easily than the pastors of ten 200-person churches” (Chaves 2006, 337). Other research suggests clergy in networks of large Protestant churches evidence high levels of political involvement and a concern for protecting conservative religious values (Dochuk 2011; Kellstedt and Green 2003).

What about other factors that might amplify the influence of large churches? In this chapter, I focus on the socio-economic status (SES) composition of the congregation. To the extent that both larger congregations and more affluent and educated individuals attract the attention of politicians, a positive correlation between size and the SES composition of the church may magnify the political influence of large churches. We know from other research that across a wide array of denominations, people are increasingly concentrated in a denomination’s largest churches (Chaves 2006) and that the number of megachurches has increased dramatically since the 1970s (Thumma and Travis 2007). This makes understanding their impact all the more vital.

Previous research has not identified size as a key correlate of congregational socio-economic composition. One study hints at the connection by suggesting that individuals in large churches are more likely to have friends who are corporate executives (Wuthnow 2002); another contends that large Protestant churches are predominantly middle class (Kilde 2002, 215–220). However, the bulk of the literature suggests large churches have a diverse status composition. A study of

megachurches – churches with 2,000 or more in worship attendance – argues that they draw from a socially and economically varied catchment (Thumma and Travis 2007; Karnes et al. 2007). Due to their size, they can adapt their program offerings to appeal to a wide variety of people; this leads to high levels of diversity in terms of income, education, and racial composition (von der Ruhr and Daniels 2012; Thumma and Travis 2007, 139–141). Two prominent observers of megachurches assert,

Contrary to how they appear from the outside or to a casual visitor, megachurches are not homogeneous collections of the same kind of person, neither by class, race or education or political stance. It is true that megachurch attendees do have similar lifestyles, but this is due more to a common suburban milieu...than anything intrinsic to the megachurch itself' (Thumma and Travis 2007, 144).

Other sociologists expand this argument to encompass congregations of various sizes:

It is past time that we accepted the unanimous results of more than fifty years of quantitative research that show that although class does somewhat influence religious behavior, the effects are very modest, and most religious organizations are remarkably heterogeneous in terms of social status (Stark and Finke 2000, 198).

A study based on the U.S. Congregations and Life Study concludes, “even at the

congregational level, class boundaries are not very powerful” (Reimer 2007, 591).

In this article, I show that socio-economic dynamics *are* salient in understanding the organization of Protestant congregations in the United States. Using the National Congregations Study (Chaves 2007), a nationally representative sample of congregations, I identify a positive correlation between church size and the proportion of the congregation with high SES. This relationship holds across Protestant traditions, differing only in degree, not direction.

Any connection between size and the SES composition of congregations may simply reflect broader patterns of residential stratification. In this article, I aim to determine if this relationship derives merely from geography. In the U.S., the poor are concentrated in urban cores; the affluent have generally been the first to move to the edges of expanding cities (Massey 1996; Baldassare 1992; Jackson 1985, 6). Previous research shows that megachurches prevail in the suburbs of large urban areas (Karnes et al. 2007; Bird 2007; Thumma et al. 2005; Wollschleger and Porter 2010). The construction and expansion of large church facilities requires both available land and considerable political goodwill from city planners. Congregations populated by predominantly higher-SES people are more likely to receive concessions from city officials to construct large facilities. In other words, the relationship between size and SES composition may result from the “suburban milieu” that contains more individuals with higher SES and favors the construction of large church facilities, rather than “anything intrinsic” to large churches in

and of themselves. Congregations may, to a large extent, reflect their local environments. If it is true that affluent areas favor larger churches, then the observed relationship between size and higher socio-economic status composition will not apply in poor areas.

In this research, I aim to establish the systematic variation between size and the SES-composition of congregations, test the robustness of this relationship, and rule out obvious factors like denominational tradition, the suburban milieu, and the racial composition of the congregation as explanatory factors. In the discussion of the results, I offer several likely candidates for the underlying social processes that are generating these results. However, due to the limitations of space and the lack of data linking things like household time use to congregation size, I leave in-depth exploration of the generative social processes for future research.

4.2 Data

The data for this study come from the NCS and the General Social Survey—a nationally representative face-to-face sample of the non-institutionalized, adult population in the United States. The 1998 NCS surveyed 1,234 congregations and the 2006 NCS, 1,506 (Chaves et al. 1999; Chaves 2007; Chaves and Anderson 2008).¹

¹ Much of the previous research on the relationship between social composition and size comes from the Megachurches Today surveys (part of the Faith Communities Today surveys), conducted in 2000 and 2005 (Thumma 1996; Dudley and Roozen 2001; Thumma et al. 2005; Roozen 2007), and the U.S. Congregational Life Survey (Woolever and Bruce 2002). See Thumma and Travis (2007, 193–197) for a description of the methodology used in the Megachurches Today surveys and the FACTS surveys; see Appendix 1A of Woolever and Bruce (2002) for the USCLS. Questions about representativeness limit the generalizability of these studies. The Faith Communities Today surveys are denominationally based, and while they purport to cover a large majority of American

The NCS uses a hypernetwork sampling procedure to generate a nationally representative sample of congregations. Respondents to the 1998 and 2006 GSS were asked to identify their place of worship; the congregations nominated by the individuals constitute the sample for the NCS. The data were gathered from telephone interviews with a key informant in the congregation (most often the head clergy person). The NCS attained high response rates (78% in 1998 and 80% in 2006) as did the GSS (76% in 1998 and 71% in 2006).

The NCS and GSS are linked, which allows analysis at the congregational and individual levels. As this study aims to examine the relationship between size and the SES composition of the congregation (rather than the relationship between the size of congregation an individual attends and their SES characteristics), my main analyses proceed using congregation-level data. I use the individual-level data to confirm patterns in the NCS.

This analysis is restricted to Protestant congregations. Catholic parishes are organized by church officials along geographic lines, making them difficult to compare with Protestants where there is less ecclesiastical control over church size and

congregations, they are not random samples from the total population of U.S. congregations. There is no authoritative list of congregations in the U.S. Thumma and Travis have gone to considerable lengths to create a complete list of megachurches. The Megachurches Today surveys sample from a constructed list of megachurches; there are no assurances that this represents the entire population. Low response rates also pose a significant problem. The Megachurches Today 2005 survey sent 1,236 surveys (out of an estimated 1,836 potential megachurch candidates) and received 406 complete responses for a response rate of 32.8 percent. The MT 2000 survey had a response rate of 25.5%. The Faith Communities Today 2005 survey had a response rate of 28.2% (response rates in 2000 were not reported). Like the NCS, the USCLS used a GSS-nominated congregations to generate a random sample of congregations; of the 1,214 nominated and verified congregations, 434 (36%) returned surveys.

location. Latter-Day Saints congregations are also excluded because they tightly control church size at around 300 members (Finke 1994). This reduces the effective sample size to 972 Protestant congregations in 1998 and 954 in 2006 for a total combined sample of 1,926 congregations.

The dependent variable in this analysis is the number of adults who regularly participate in the congregation, whether or not they are officially members. Thirty-two congregations had missing values for this variable.² This number imperfectly represents the actual number of regular adult participants in the congregation. Defining 'regular participants' is an inherently subjective process. However, key informant and participant reports of size are highly correlated: the correlation coefficient is 0.7 between the logarithm of the key informant's estimate of size in the NCS and the logarithm of the respondent's estimates of their congregation's size in the GSS. This justifies the assumption that NCS estimates are sufficiently accurate to construct meaningful comparisons with other churches in the sample. In the individual-level analyses, I use the key informant report of size rather than the respondent's estimate as the dependent variable; likely, key informants more accurately assess size.

Figure ?? offers a histogram of the number of adults in the congregation; Figure ?? is the same plot but for the subsample of churches with 1,000 or more adult participants. These figures show considerable skew in the overall distribu-

² In these cases, the NCS investigators calculated this variable using the reported total number of participants and estimating the proportion of children in the congregation.

tion of congregation size, even among large churches. Small churches tend to survive even though they are not organizationally sustainable (Anderson et al. 2008). The *median* congregation has 175 participants, the *mean* congregation, 462. Most large churches are clustered in the 1,000–2,000 regular-adult-participant category. Only four Protestant congregations in the sample have 10,000 or more members. In order to conduct bivariate comparisons of the socio-economic status composition of congregations of different sizes, I group congregations into five categories—0–100, 101–500, 501–1000, 1001—3000 and 3000 or more regular adult participants. These categories balance the ability to display important differences, while also retaining sufficient numbers of cases in each category to conduct meaningful comparisons. Size must be kept in perspective. Among Protestant congregations in the United States, 99.5%% have fewer than 1,000 adults. Seventy-six percent have 100 or fewer participants. Looked at as a proportion of *Americans who attend Protestant congregations*, 11% attend churches with 1,000 or more regularly participating adults and 34% attend churches with fewer than 100. Proportionally, large churches are rare; however, they contain a significant part of the Protestant population.

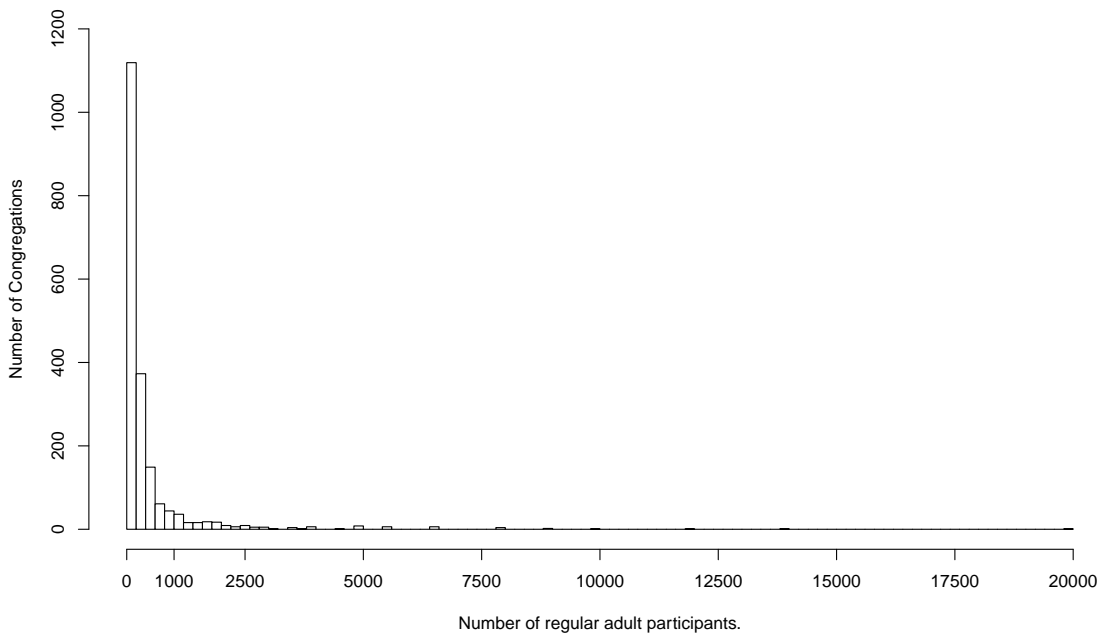


FIGURE 4.1: Histogram of the size distribution of Protestant in the United States. These data are weighted to be representative of all the Protestant congregations the United States

Measuring the Socio-Economic Composition of Congregations

I measure the socio-economic composition of the congregation using three key measures provided by the NCS: the proportion of people in high-income households (more than \$100,000 per year in annual household income), the proportion in low-income households (less than \$25,000 per year in annual household income), and the proportion with four-year college degrees. Missing data pose a problem on the social composition variables. 15% of the cases are missing estimates of low income households, 12% are missing on high incomes, and 9% are missing on Bachelor's degree. In all of these cases I imputed values using a regression-

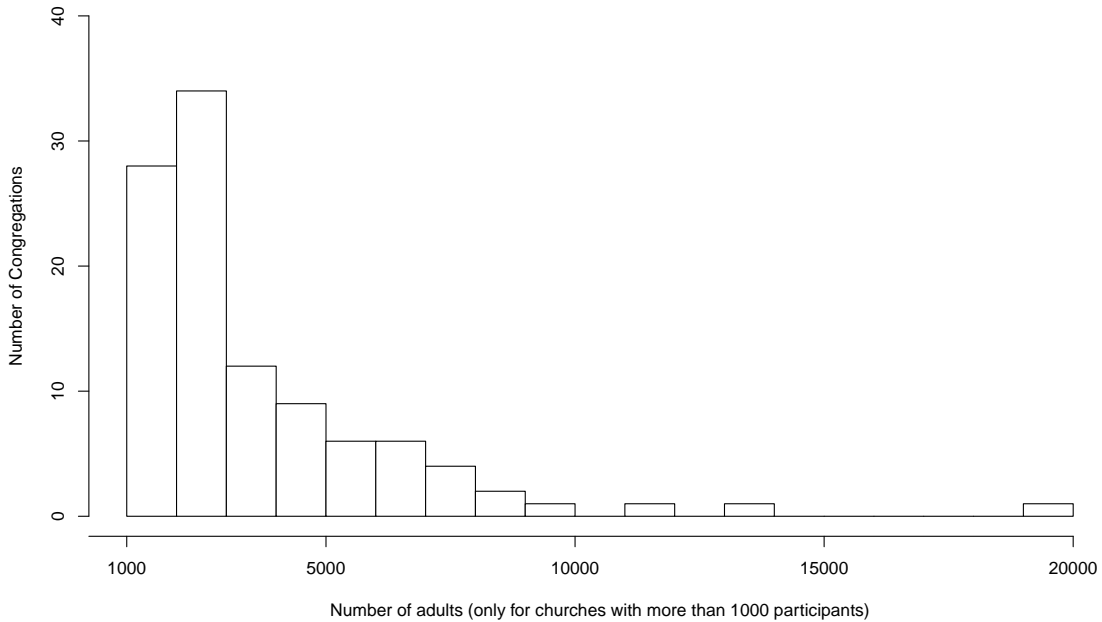


FIGURE 4.2: Histogram of the size distribution of Protestant churches with more than 1,000 attendees. These data are weighted to be representative of all the Protestant congregations the United States.

based imputation strategy (Gelman and Hill 2007). Excluding the missing cases produces the same substantive findings, however the overall statistical power of the model is reduced.

This study hinges on the accuracy with which key informants estimate the social composition of the congregation. Using data from a sample of 242 U.S. congregations, a recent article compares key informant estimates to averages obtained by individual-level surveys of the participants (Schwadel and Dougherty 2010). These researchers found key informants accurately estimate the proportion of people with high incomes. On average, key informants and membership surveys came within three percentage points of one another. However, on low in-

come and college degree, key informants have a great deal more trouble – more than a quarter of key informant estimates differed from membership surveys by 20 points or more. These authors also report that size of the congregation does not significantly impact the accuracy of key informant reports. Another study compares NCS estimates to the aggregate characteristics of individual-level data from the GSS. Their conclusions are similar – key informants have greater difficulty assessing less-observable characteristics (Frenk et al. 2011). NCS informants appear to accurately assess the proportion of people in high and low income households. They significantly over-estimate the number of people with college educations by as much as 10 points.

Independent Variables

Multivariate regression models are employed to measure the relationship between congregation size and SES composition when other factors known to impact the size and social composition of congregations are controlled. This includes the impact of the location of the church building on the SES composition of the congregation. Due to privacy considerations, the NCS investigators limit the publicly available information about the social composition of the census tract in which the congregation's building is located to binary indicators for census tracts with high immigrant and/or minority populations and for tracts where at least 30% of the households are at or below the official U.S. poverty line. As the focus of this study is on SES, I only include the latter variable in the analysis.

Congregational social composition may vary significantly depending on the degree of urbanization. Large churches are overwhelmingly urban. More than 90% of churches with 1,000 or more adult participants are in urban areas; all churches with 2,800 or more are in urban areas. Urban areas have different socio-economic dynamics than less urbanized or rural locations. To control for these differences, a three-category variable is included that indicates whether the census tract where the congregation's building is located is predominantly urban, suburban or rural.³

Relative spending levels may influence congregational size, and a 'congregational spending per adult' variable is included in the model. This is the total amount of money spent by the congregation in the previous fiscal year on operating costs in constant 2006 dollars (capital expenditures are excluded) divided by the number of regular adult participants.⁴

Younger and older people have significantly different income profiles than those in middle life and they vary in their ability to travel to religious services, so congregations with a large percentage of younger or older adults may have a significantly different SES profiles. I include variables that estimate the proportion of people in the congregation under 35 years old, as well as the proportion over 60.⁵

³ The urban classification scheme is drawn from the U.S. Census Bureau's classification of areas as Urbanized Areas (a continuous cluster of high density census blocks with more than 50,000 inhabitants), Urban Clusters (continuous high density cluster of census blocks with at least 2,500 people, but less than 50,000 people), and Rural Areas (those not in an Urban Area or Urban Cluster) (Barron 2001). The 1990 census was used to construct the level of urbanization for the 1998 NCS and the 2000 census for the 2006 NCS.

⁴ Missing data presents a problem in this measure (20%). I imputed these values following the iterative regression imputation method proposed by Gelman and Hill (2007). Excluding the cases with missing data does not alter the substantive conclusions.

⁵ The reported percentage of people in the congregation over 60 and under 35 were each divided

I also add a variable to the model that measures the percent of the congregation that is female.

In the U.S. race and SES are linked (Oliver and Shapiro 2006). The racial composition of a congregation is also related to size (racially diverse churches tend to be larger), so percent non-white is added to the model as a control. Operationalizing racial diversity within congregations presents several challenges. A large proportion of congregations (66%) are more than 90% white. A significant minority (15%) are more than 90% Black. Less than 2% of congregations had more than 10% Asian; about 7% had more than 10% Hispanic. To deal with this highly irregular distribution, I chose to operationalize ethnic diversity as percent non-white. Because percent non-white has a bimodal distribution, a continuous variable does not work effectively in the regression models. This is a categorical variable with the following categories, 0–10% non-white, 11–20%, 20–50% and more than 50% non-white.

A goal of this analysis is to determine whether the magnitude and direction of the size-social composition relationship differs across major religious traditions. Research has shown that SES varies by religious affiliation (Lenski 1961; Laumann 1969; Hoge and Carroll 1978; Nelsen and Potvin 1980; Keister 2003). Mainline Protestants have higher SES, on average, than Conservative Protestants. Mainline congregations are also typically smaller. In order to account for possible differ-

by 10 (to make the coefficients more easily interpretable) and added as a continuous variable. A one unit increase in the variable represents a 10 percentage point increase. Less than 3 percent were missing on the two age composition estimates.

ences across Protestant traditions, I add the standard indicator variables for White Mainline, White Conservative and Black Protestant (Steensland et al. 2000). Evidence suggests that Pentecostal/Charismatic churches differ systematically from non-Charismatic congregations on both size and SES composition (McGaw 1979, 1980). Affiliation with the Charismatic movement is common in White Conservative and in Black Protestant churches but rare in Mainline churches. Charismatic religious identity is signaled with an indicator variable, coded 1 if the key informant indicated that in the past 12 months people have spoken in tongues in a church service.

To further capture religious tradition, I add two additional variables that measure political and social conservatism. Including these variables helps to provide an additional level of control beyond simply using measures of affiliation. Informants were asked “politically speaking, would your congregation be considered more on the conservative side, more on the liberal side, or right in the middle?” A dummy variable was created indicating that the congregation was more on the conservative side. Congregations classified as “right in the middle” or “more on the liberal side” were coded zero.⁶ The NCS also asks a number of questions about whether the congregation has a policy against same-sex behaviors, pre-marital cohabitation, and the consumption of alcohol. From previous research, we know these are highly relevant issues in the contemporary American

⁶ Missing values (4% of the sample) were imputed based on the response to the question about whether the congregation is positioned against homosexual behavior. Excluding these cases does not substantively change the results.

Conservative Protestant movement (Hertel and Hughes 1987; Wilcox and Jelen 1990; Putnam and Campbell 2010). I code congregations where informants indicated the congregation has a policy against these behaviors one (zero otherwise). Due to colinearity, I add them together into a social conservatism scale.

I introduce variables to account for regional variation. This variable is based on the US Census Bureau classification system and contains four categories – the Northeast, the South, the Midwest, and the Western regions (Barron 2001). Churches tend to be larger, on average, in the Midwest and South, and comparatively smaller in the Northeast and West regions (Wollschleger and Porter 2010).

I include an indicator variable indicating that the survey was done in 2006 to account for potential changes between 1998 and 2006.

In the individual-level analyses, I add race as a four-category variable (white [reference], Black, Hispanic, other). Age of the respondent is included as a continuous variable as are dummy variables indicating female and currently married respondents.

Modeling strategy

This study aims to assess the relationship between the socio-economic composition of churches and their size and to determine if this relationship holds when factors related to both size and the SES composition of the congregation are controlled.

The dependent variable in this analysis is the number of regular adult attenders. A regression model is used to predict the average congregational size

when a series of factors, including SES composition, are controlled. If a coefficient is significantly positive, this means that a one unit increase in the independent variable leads us to expect that a congregation will be, on average, larger. The advantage of using size, rather than SES composition, as the dependent variable is that it allows me to simultaneously examine the impact of all of the measures of SES composition on size rather than running separate models for each of the SES measures.

Size has an extreme level of skew, one that is not fully corrected by taking the natural logarithm. Additionally, there is the possibility that the strength of correlation between size and SES composition varies across different sizes of churches. In this analysis I use a hurdle model (a class of zero-inflated models) to capture skew and to account for different correlations across different sizes.⁷ Hurdle models are two-component models that combine a logistic regression (looking at the predictors for being a 'zero' [in this case a congregation is a zero if it is below a certain size threshold] versus a 'non-zero') and a negative binomial regression which models the count *beyond* zero (in this case beyond a certain size threshold). The advantage of using a hurdle model over splitting the dependent variable and running separate analyses is that the entire sample is retained, which increases statistical power. The negative binomial accommodates the additional skew in the size variable.

⁷ Hurdle models first developed in econometrics (Mullahy 1986) and are widely used in the analysis of count data with excess zeroes. Long and Freese (2006) describe the estimation of these models and their interpretation.

The hurdle model produces two sets of coefficients. The first is a set of logistic regression coefficients. These describe the odds of being in the bigger size category. The second set of coefficients describe the correlation between a continuous measure of size and the independent variables for those congregations bigger than the threshold. This portion of the model is a negative binomial regression.⁸ Because this portion of the model is log-linear, exponentiating the coefficients gives the multiplicative effect of increasing the independent variable by one unit. I report the hurdle models with two thresholds, ≤ 500 members (essentially the mean), and $\leq 1,000$ members. These thresholds were chosen for theoretical reasons and for mathematical efficiency. The substantive interest in this research is large churches. The 500-participant threshold corresponds to churches above or below the mean size; the 1,000-adult-participant threshold roughly to so-called ‘megachurches’. Going beyond 1,000 attenders creates a problem with too small a sample of large congregations for the model to converge. The best fit (using BIC values to assess adequacy of fit) was achieved with a threshold of 1,000.

4.3 Results

4.3.1 *Bivariate Results*

What do these data reveal about the relationship between size and the SES composition of U.S. Protestant churches? In Table 4.1, I present the average values of the SES composition indicators over a range of sizes of congregations (congregational-

⁸ A Poisson was also explored. The Poisson assumes a dispersion of 1, whereas the negative-binomial allows other values of dispersion. The negative-binomial produced a superior fit.

level results). I also present the proportion of individuals with salient SES characteristics who attend congregations of different sizes (individual-level results).

Congregational-level Bivariate Results

At the congregational-level, several key relationships emerge. In terms of household incomes, congregations with 3,000 or more participants have more than six times the proportion of people with household incomes over \$100,000 per year compared to congregations with 100 or fewer participants, four times for congregations between 100 and 500 participants. The proportion of people with low household incomes shows the opposite relationship. Congregations with 3,000 or more participants contain, on average, about half as many people in low income households than congregations with 100 or fewer participants. Educational attainment follows a similar pattern as high income. Congregations with 3,000 or more people contain almost three times as many participants with college degrees than congregations with 100 or fewer regular adult participants.

What about location? In terms of the distribution of congregations of varying sizes across census tracts with high degrees of poverty, congregations with 3,000 or more attenders are rare in poor census tracts—there was only one in the NCS sample. 8% of congregations with 1,000–3,000 regular participants were located in census tracts with high degrees of poverty. About 15% of congregations with 500–1,000 participants, 10% of 100–500 participant churches, and 15% of the smallest churches have buildings in census tracts with a high degree of poverty.

Table 4.1: Bivariate results, congregation size and compositional characteristics.

| | Number of regular adult attenders | | | | | | | | |
|---|-----------------------------------|---------|-------------------|----------|------|-----------|------|-------|------|
| | ≤100 | 101–500 | Sig. ^a | 501–1000 | Sig. | 1001–3000 | Sig. | >3000 | Sig. |
| Congregational-level results:¹ | | | | | | | | | |
| <i>Per cent of congregations with:</i> | | | | | | | | | |
| Annual HH income ≤ \$25k | 36.73 | 22.00 | *** | 15.93 | *** | 16.49 | | 14.94 | |
| Annual HH income ≥ \$100k | 4.79 | 12.79 | *** | 24.50 | *** | 22.72 | | 29.82 | ** |
| College Degree | 20.35 | 36.79 | *** | 51.89 | *** | 52.55 | | 62.31 | * |
| Number of congregations | 693 | 894 | | 159 | | 137 | | 43 | |
| <i>Per cent of congregations in (out of the total number in a size category):</i> | | | | | | | | | |
| Census Tract 30% HH's below poverty line | 14.26 | 10.25 | ** | 14.35 | ** | 8.39 | ** | 4.58 | |
| Number of congregations | 83 | 93 | | 26 | | 12 | | 1 | |
| Individual-level results:² | | | | | | | | | |
| <i>Per cent of respondents with:</i> | | | | | | | | | |
| Annual HH incomes ≤ \$25k | 34.74 | 24.60 | *** | 21.47 | | 17.04 | | 9.07 | * |
| Annual HH incomes ≥ \$100k | 3.49 | 10.92 | *** | 10.60 | | 19.26 | ** | 25.00 | |
| College Degrees | 19.40 | 33.25 | *** | 45.42 | *** | 39.91 | | 40.72 | |

Notes: ^ap-value from an F-test that congregations in the larger category are different from the next-smaller category.

Significance levels are: *** ≥ .99, ** ≥ .95, * ≥ 0.90, . ≥ 0.80

Source: ¹NCS (1998, 2006), weighted to be representative of all congregations in the U.S.

²GSS 1998 and 2006, weighted to be representative of the U.S. population

Table 4.2: Cross tabulation of congregation size and distance traveled to the congregation.

| | Number of regular adult attenders | | | | |
|-------------------------------|--|---------|----------|-----------|-------|
| | ≤100 | 101–500 | 501–1000 | 1001–3000 | >3000 |
| Within a five minute walk (%) | 16.3 | 18.2 | 12.8 | 10.2 | 8.9 |
| Within a five minute drive | 58.1 | 60.5 | 57.0 | 58.6 | 43.9 |
| More than a 30 minute drive | 15.7 | 11.5 | 11.3 | 17.6 | 26.2 |

Source: NCS (1998 and 2006) and GSS(1998 and 2006)

Local conditions may not fully determine the make-up of congregations, particularly for large ones, because they draw from a wide geographic area (Karnes et al. 2007). Some people may travel from the suburbs to the urban core to worship in a historical building. Others may drive across town for children’s programs or a prominent preacher. The NCS contains variables to assess the relationship between size and the distance people travel to attend the congregation. Key informants were asked what proportion of participants live within a ten minute walk, a ten minute drive, or more than a thirty minute drive from the building. The results are revealing. Table 4.2 shows the cross tabulation of size and distance traveled to the congregation. Larger churches have a greater proportion of their members who travel long distances to attend services. For churches with more than 3,000 members, about 25% of their participants drive more than 30 minutes to attend services. However, even for churches with 3,000 or more participants, they still draw a considerable proportion of their adherents—on average, 53%—from nearby locations.

Individual-level Bivariate Results

The individual-level results tell a similar story. In terms of household incomes, 25% of the respondents who attend churches with 3,000 or more participants have household incomes of \$100,000 or more per year, as opposed to 10% of those who attend churches with between 100–500 or 500–1,000 participants, and only 3% of those who attend churches with 100 or fewer participants. Approximately 9% of the respondents who attend churches with 3,000 or more participants have household incomes less than \$25,000 per year, as opposed to 17% of those who attend churches with 1,000 to 3,000 participants, 21% of 500–1,000 participant churches, 25% of 100-500 participant churches, and 35% of those who attend churches with 100 or fewer.

Educational attainment evidences a weaker association with size in the individual level bivariate results. About 40% of people who attend churches 1,000-3,000 and 3,000 or more participants have college degrees, as opposed to 33% of those in congregations with 100-500 participants and 19% of those in congregations with fewer than 100 participants. Congregations with 500-1,000 participants have the highest proportion educated, with 45%.

4.3.2 Multivariate Results

Congregational-level Multivariate Results

In Panels A and B of Table 4.3, I report the baseline results from the multivariate analysis. The earlier size-SES composition patterns from Table 4.1 remain present.

The proportion of people in high income households possesses a strong, significant and positive relationship to size across both thresholds. Out of all the social composition variables, the proportion high income bears the strongest relationship with size. The proportion of people with college degrees is also positively correlated with size across models, but it does not have as strong of a relationship as high income. The proportion with a college degree is significantly correlated with the size of congregations up to the 1,000-participant mark. After that point it is no longer a significant predictor. In terms of the proportion in low income households, in most cases the relationship is non-significant.

To put these results into context, consider the expectation that a congregation is larger than 500. Increasing the proportion in high-income households 10% produces odds that a congregation is larger of 1.65. A congregation is expected to be 20% larger with an additional 10% of the congregation in high income families.

In the model with 1,000 participants as the hurdle model threshold, we find a similar result. The odds that a congregation is larger than 1,000 given an additional 10% of the congregation is in a high income household is 1.61. A congregation is expected to be 15% larger with an additional 10% of the congregation in high income families.

Table 4.3: Congregation-level hurdle regression coefficients predicting the number of regularly participating adults.

| | Threshold # of participants | |
|--|-----------------------------|------------|
| | ≥ 500 | ≥ 1000 |
| Intercept | 7.193 *** | 7.677 *** |
| %-age of adults in HH with income less than 25k/year (10%'s) | 0.031 | 0.105 ** |
| %-age of adults in HH with income 100k/year (10%'s) | 0.16 *** | 0.127 *** |
| %-age of adults with Bachelor's degrees (10%'s) | 0.037 * | 0.037 |
| %-age of adults less than 35 years olds (10%'s) | 0.093 *** | 0.057 * |
| %-age of adults older than 60 (10%'s) | -0.038 | 0.039 |
| %-age of adults female (1%'s) | -0.005 | -0.01 |
| %-age non-white more than 10, less than 20% | 0.462 *** | 0.456 *** |
| %-age non-white between 20 and 50% | 0.088 | 0.086 |
| More than 50% non-white | -0.135 | 0.002 |
| Black Protestant (Evangelical ref) | 0.382 * | 0.098 |
| Mainline Protestant | -0.332 *** | -0.378 *** |
| More conservative politically | 0 | -0.043 |
| Social conservatism scale (0-3) | 0.022 | 0.065 |
| Midwest (Northeast ref) | 0.051 | 0.11 |
| South | 0.114 | 0.056 |
| West | 0.08 | -0.176 |
| In suburban area (urban ref) | -0.399 *** | -0.391 ** |
| In rural area | -0.538 *** | -0.56 ** |
| Age of congregation (years) | -0.004 ** | -0.002 |
| Congregational spending per member (2006 dollars) | -0.01 *** | -0.011 ** |
| Year 2006 | -0.074 | 0.056 |
| Over-dispersion | 2.165 | 3.353 |

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Panel B: Logistic regression coefficients predicting membership above the threshold

| | Threshold # attenders | | |
|--|-----------------------|--------|-----|
| | ≥ 500 | ≥ 1000 | |
| BIC | 6747 | 3640 | |
| Intercept | -0.911 | -2.392 | *** |
| %-age of adults in HH with income less than 25k/year (10%'s) | -0.051 | -0.06 | |
| %-age of adults in HH with income 100k/year (10%'s) | 0.501 | 0.479 | *** |
| %-age of adults with Bachelor's degrees (10%'s) | 0.193 | 0.198 | *** |
| %-age of adults less than 35 years olds (10%'s) | 0.026 | 0.068 | |
| %-age of adults older than 60 (10%'s) | -0.147 | -0.203 | *** |
| %-age of adults female (1%'s) | -0.023 | -0.017 | * |
| %-age non-white more than 10, less than 20% | 0.574 | 0.892 | *** |
| %-age non-white between 20 and 50% | 0.552 | 0.522 | ** |
| More than 50 percent non-white | 0.568 | 0.172 | |
| Black Protestant (Evangelical ref) | -0.332 | 0.376 | |
| Mainline Protestant | -0.81 | -0.88 | *** |
| More conservative politically | 0.236 | 0.496 | ** |
| Social conservatism scale (0–3) | -0.195 | -0.182 | * |
| Midwest (Northeast ref) | 0.352 | 0.407 | |
| South | 0.476 | 0.696 | * |
| West | 0.332 | 0.937 | ** |
| In suburban area (urban ref) | -0.639 | -1.237 | *** |
| In rural area | -1.951 | -1.957 | *** |
| Age of congregation (years) | 0.012 | 0.005 | |
| Congregational spending per member (2006 dollars) | -0.033 | -0.028 | *** |
| Year 2006 | -0.474 | -0.397 | ** |

Source: National Congregations Study (1998, 2006)

*** $p \leq 0.001$, ** $p \leq .01$, * $p \leq 0.05$, $p \leq 0.1$

Holding income constant and increasing the proportion with a college degree by 10% produces the following estimates. The odds that a congregation has 500 versus less than 500 is 1.213; and 1,000 versus less than 1,000, 1.219. A congregation is expected to be about 4% larger with with a 10% increase in the proportion with a college degree.

In Table 4.4, I examine the impact of adding a dummy for churches with their buildings located in census tracts with high degrees of poverty. Churches with more than 1,000 attenders are less likely located in disadvantaged census tracts. The odds of a 1,000-participant church being located in a disadvantaged census tract is 0.422 (there is no difference in odds of a church containing 500 or more participants being located in a disadvantaged tract).

However, even though churches are less likely found in census tracts with high degrees of poverty, the size-high SES relationships remain. None of the interaction terms between poor census tracts and SES-composition achieve significance, indicating that the size-SES relationship is similar both inside and outside disadvantaged census tracts.

Table 4.4: Hurdle regression coefficients predicting the number of regular adult attenders with census tract characteristics and interaction terms added.

| | Threshold # of participants | |
|---|-----------------------------|-----------|
| | ≥ 500 | ≥ 1000 |
| Negative Binomial Coefficients—Non-Interactive Model | | |
| 30% census tract below poverty line | -0.807 ** | -0.812 . |
| Logistic Regression Coefficients—Non-Interactive Model | | |
| 30% census tract below poverty line | -0.328 | -0.861 * |
| BIC | 6781 | 3659 |
| Negative Binomial Coefficients | | |
| 30% census tract below poverty line | -0.167 | -0.774 |
| %-age of adults in HH with income less than 25k/year (10%'s) | 0.110 | 0.304 * |
| %-age of adults in HH with income 100k/year (10%'s) | 0.175 . | 0.183 . |
| %-age of adults with Bachelor's degrees (10%'s) | .0800 | 0.109 . |
| 30% poor census tract × low HH income | -0.209 | -0.474 |
| 30% poor census tract × high HH income | 0.237 | -0.001 |
| 30% poor census tract × 4-year degree | -0.118 | 0.164 |
| Logistic Regression Coefficients | | |
| 30% census tract below poverty line | -0.270 | -1.828 ** |
| %-age of adults in HH with income less than 25k/year (10%'s) | -0.032 | -0.041 |
| %-age of adults in HH with income 100k/year (10%'s) | 0.486 *** | 0.411 *** |
| %-age of adults with Bachelor's degrees (10%'s) | 0.160 *** | 0.171 *** |
| 30% poor census tract × low HH income | -0.031 | 0.132 |
| 30% poor census tract × high HH income | -0.184 | 0.260 |
| 30% poor census tract × 4-year degree | 0.061 | 0.036 |
| BIC | 6733 | 3609 |

Source: National Congregations Study, waves I and II

Notes: All control variables applied

*** $p \leq 0.001$, ** $p \leq .01$, * $p \leq 0.05$, . $p \leq 0.1$

What about religious tradition? Does the relationship between size and SES hold over White Mainline, Black Protestant, and White Conservative churches? Does it also hold within Charismatic churches? Table 4.5 shows that the size-SES composition is similar, but less powerful in Mainline churches. In this table, I only present the results using 500 members as the threshold. The odds of a Mainline church having more than 500 participants when high income percent is increased by 10% is 1.35 versus 2.00 for a White Conservative Protestant church. The odds of a Mainline church having more than 500 participants with an additional 10% low income is 0.797 versus 1.00 for a Conservative Protestant church, which is not surprising given the historical association between higher SES and Mainline churches. The size-SES relationship is not different in Black Protestant versus White Conservative Protestant churches. The size-SES relationship is not affected when Charismatic affiliation is added.

In terms of other controls, one result is noteworthy. The model predicts a small cost efficiency gain with increasing church size, holding all other variables constant (i.e. the coefficient on spending per member is negative). This *negative* relationship between church size and congregational spending is consistent across all models. This indicates that larger churches are slightly more economically efficient, on average, than smaller congregations. This result holds under a number of different imputation strategies. The increase in efficiency is not due to denominational differences, as religious tradition is held constant in the model.

Table 4.5: Hurdle model regression coefficients predicting the number of regular adult attenders with religious tradition and interactions added.

| 500 participants is the threshold | | |
|--|---------|-----|
| Negative binomial regression coefficients | | |
| Intercept | 6.45 | *** |
| %-age of adults in HH with income less than 25k/year (10%'s) | 0.052 | |
| %-age of adults in HH with income 100k/year (10%'s) | 0.255 | . |
| %-age of adults with Bachelor's degrees (10%'s) | 0.055 | |
| Black Protestant (Evangelical ref) | -0.388 | |
| Mainline Protestant | 0.093 | |
| Black Protestant x low income HH | 0.154 | |
| Mainline Protestant x low income HH | -0.214 | |
| Black Protestant x high income HH | 0.168 | |
| Mainline Protestant x high income HH | -0.050 | |
| Black Protestant x bachelor degree | 0.128 | |
| Mainline Protestant x bachelor degree | -0.044 | |
| Logistic regression coefficients | | |
| Intercept | -1.173 | . |
| %-age of adults in HH with income less than 25k/year (10%'s) | -0.013 | |
| %-age of adults in HH with income 100k/year (10%'s) | 0.695 | *** |
| %-age of adults with Bachelor's degrees (10%'s) | 0.199 | *** |
| Black Protestant (Evangelical ref) | -0.834 | |
| Mainline Protestant | 0.695 | |
| Black Protestant x low income HH | 0.068 | |
| Mainline Protestant x low income HH | -0.227 | . |
| Black Protestant x high income HH | -0.123 | |
| Mainline Protestant x high income HH | -0.388 | ** |
| Black Protestant x bachelor degree | 0.139 | |
| Mainline Protestant x bachelor degree | -0.0919 | |
| BIC | 6635 | |

Source: National Congregations Study, waves I and II

*** $p \leq 0.001$, ** $p \leq .01$, * $p \leq 0.05$, . $p \leq 0.1$

Individual-level Multivariate Results

At the individual level, these relationships continue to hold. In Table 4.6, I present these results (the NCS variable, the number of regular participants in the congregation is still the dependent variable). To conserve space, I do not present the coef-

ficients on the control variables for the individual-level models. However, overall the coefficients on the controls are similar and operate in the same direction. The individual-level model reveals a positive relationship between living in a high income household and attending a congregation of more than 500 and more than 1,000 (for 500 or more the odds are 1.68, for 1,000 or more, the odds are 1.96). Having a college degree is also modestly correlated with size (for 500 or more the odds are 1.39, not a significant predictor for churches larger or smaller than 1,000). In contrast with the congregational-level results, being in a low income household is a negative predictor of a church having 500 or more (odds=.552) and for attending a church with 1,000 or more attenders (odds=.532, the relationship was non-significant at the congregation-level.)

Table 4.6: Hurdle model regression coefficients predicting the size of congregation an individual attends.

| | Threshold # of participants | | | |
|--|-----------------------------|-----|--------|-----|
| | ≥ 500 | | ≥ 1000 | |
| Negative binomial regression coefficients | | | | |
| Intercept | 7.768 | *** | 8.351 | *** |
| HH income \$100k/year | 0.313 | *** | 0.274 | ** |
| HH income less than \$25k/year | -0.056 | | -0.009 | |
| College degree or higher | -0.181 | ** | -0.189 | * |
| Dispersion | 1.924 | | 2.932 | |
| Logistic regression coefficients | | | | |
| Intercept | -0.887 | *** | -1.693 | *** |
| HH income \$100k/year | 0.518 | *** | 0.675 | *** |
| HH income less than \$25k/year | -0.594 | *** | -0.631 | *** |
| College degree or higher | 0.332 | ** | 0.155 | |
| BIC | 7832 | | 4199 | |

Source: National Congregations Study, waves I and II

Note: All control variables applied *** $p < 0.001$, ** $p < .01$, * $p < 0.05$, . $p < 0.1$

Once in the larger category, high income remains positively correlated with attending a larger congregation, but low income is no longer a significant predictor. High income people are expected to attend congregations that are significantly larger than those in the middle income category (when 500 is used as the threshold, the expected size is 37% larger, when the threshold is 1000, the expected size is 97% larger). The relationship with a college degree is significantly negative. People who do not have a college degree are expected to attend congregations about 20% larger than those with a college degree. The difference between the GSS and the NCS in the relationship between college degree and the size of church one attends is related to the fact that key informants tend to over-estimate the proportion with a degree.

4.4 Discussion and Conclusions

Church size is highly correlated with the proportion of people in the congregation with higher socio-economic status. Larger churches contain a greater proportion of people with high incomes and college educations. This is not due to the fact that large churches are found in more advantaged locations. The relationship between high income and size holds in census tracts with relatively high levels of poverty. Size and SES-composition derive from factors external to the suburban milieu.

The results failed to reveal any significant differences in the size-SES composition relationship across major Protestant traditions. In spite of the historical connections the Black Church shares with disadvantaged communities (Raboteau

2004), the high SES-size connection remains significant. In Mainline Protestant congregations, the relationship between high-SES and size is weaker. Researchers have long-established the association between Mainline Protestant congregations and higher-SES individuals (Nelsen and Potvin 1980; Hoge and Carroll 1978; Laumann 1969). In Mainline Protestant churches a “ceiling effect” may exist – i.e. across the board these congregations are already, on average, significantly higher-SES and do not have as much variation across size categories as other groups. Charismatic congregations do not differ from non-Charismatic churches.

The question remains, why is church size and SES composition related? Beyond the location of the building, these data do not allow me to assess other possible explanations behind this relationship. One candidate is time use. Previous research shows that socio-economic status correlates with an increased real and perceived time crunch. Two-earner income families have higher household incomes, but significantly less discretionary time than other family types. They experience the so-called ‘time-squeeze’ more acutely (Goodin et al. 2005; Jacobs and Gerson 2004; Leete and Schor 1994). This effect is magnified for people in managerial and professional occupations. Labor costs for trained professionals are high and firms have incentives to attempt to minimize the number of professional positions by increasing the time demands on their employees (Jacobs and Gerson 2004). How does this tie into church size? Large congregations may create an environment where the participant has greater freedom to set the terms of their in-

volvement (Chaves 2006). It is harder in small congregations to remain anonymous and avoid recruitment into a more active role. In larger churches, people experience greater anonymity. In larger churches there are also more likely staff people performing time-consuming leadership functions, meaning that individuals with professional and/or managerial experience are less prone to targeting for intensive volunteer positions. This may also make people in higher-SES households favor larger churches.

The marketing technologies employed by churches provide another possible explanation. Large churches, because they have access to a larger amount of absolute resources, can make greater use of expensive mass-media and marketing technologies to attract 'customers' – everything from direct-mail marketing, sophisticated internet sites, organized community events, neighborhood canvassing, and radio and television programs. To the extent congregations make use of emerging media and marketing technology, the more likely they will draw disproportionately from younger and more affluent populations. These populations are much more likely to use these types of technology than older and less-affluent individuals – the so-called 'digital divide' (Norris 2001; Graham 2002; Mossberger et al. 2003, 5–6). In addition, churches may specifically target these materials to higher SES neighborhoods and individuals.

These results raise an intriguing historical question. Have larger churches in the United States always possessed individuals of higher socio-economic status?

H. Paul Douglass's 1926 study provides suggestive evidence in this regard (Douglass 1926). In this book he notes that what he terms 'unadapted churches' are the smallest congregations and possess the highest proportion of people in poverty (113, 224). The largest churches in his study – 'the highly adapted churches' – appear more solidly middle class than other types. These results hint that the size-socioeconomic relationship is an enduring feature of American congregations.⁹

One important topic for further research is how racial and ethnic composition is related to size. Martin Luther King Jr. famously called Sunday morning "the most segregated hour in this nation" (King Jr 1963). Segregation patterns at the level of social institutions have implications for broader societal segregation patterns (Blanchard 2007). Do King's sentiments apply to congregations of all sizes? Are racial dynamics the same in large, medium and small congregations?

The socio-demographic composition of American congregations deserves continued attention. I identify systematic differences between Protestant churches of different sizes. These differences do not merely derive from patterns of residential segregation. In the study of congregations, socio-economic status still counts.

⁹ Douglass also finds that 'unadapted churches' spend, per capita, about 75% of what highly adapted congregations spend (\$15 vs. \$20 per capita, see chart 37 on page Douglass 1926, 224). This suggests that the financing of American congregations has changed significantly since the 1920s, as the NCS analysis predicts large churches spend less. One major change over this period is that clergy salaries have increased disproportionately, making smaller congregations more expensive to run (Chaves 2006).

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Biography

David Eagle was born June 4, 1974 in Edmonton, Alberta, Canada. He holds a B.Sc. in Mechanical Engineering from the University of Alberta in Edmonton, Alberta, an M.Div. from Fresno Pacific Seminary, a ThM. from Duke Divinity School and an M.A. in Sociology from Duke University. In 2007, he was a fellow at the Center for Studies in Religion and Society at the University of Victoria; from 2008–2009 he was the Brandaleone scholar at Duke Divinity School; from 2010–2013, he was a doctoral fellow with the Social Sciences and Humanities Research Council of Canada; in 2011–2012 and in 2013–2014 he was the William and Myra Boone fellow at Duke; in 2014–2015 he was both a Kathryn Goodman Sterns fellow and the Vorsanger-Smith scholar at Duke. His 2012 paper entitled, “Mega, medium and mini: size and the socio-economic status composition of American Protestant congregations,” won the 2012 North Carolina Sociological Association Graduate Student Paper Award. David has published in topics ranging from social networks (Eagle and Proeschold-Bell 2015), megachurches (Eagle 2015, 2012), religion and inequality (Read 2014; Keister and Eagle 2015), environmental policy (Eagle et al. 2015), religion and identity (Read and Eagle 2011), and religious trends in Canada (Eagle 2011a,b).