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Household Charitable Giving among U.S. Working-Class Families, 1918-1919

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Abstract: This paper examines household charitable giving in the period just before the New Deal increased government involvement in social services. The 1918-19 BLS Cost of Living Survey provides a window on middle-class giving to church, charity, and patriotic organizations, as well as investment in Liberty Bonds. A lognormal hurdle model is used to estimate the probability of any giving, and the amount given, to different types of organizations. From this, we estimate income elasticities of giving and the substitutability of giving to different types of organizations. The results are compared to findings from studies on modern giving. I find that giving to similar types of organizations was complementary in this time period. Church giving was particularly income inelastic. In contrast with today, families living in the northeast were most likely to give to churches. I consider a few explanations for this result.

1. Introduction

In 2020 Americans gave $471 billion, about 2.25% of GDP, to charitable organizations (Giving USA, 2021). More than 80% of these donations came from individuals rather than corporations or foundations. Thanks to extensive budget studies, we have a solid understanding of the household characteristics associated with contemporary giving. Recent work shows that age, education, and income

are all positively related to giving. As a percentage of income, the relationship between income and giving is U-shaped—those at the lowest and highest ends of the income distribution give the highest proportions. (See for example: Carroll et al (2005) for Ireland; Kitchen (1992) for Canada; and James and Sharpe (2007) for the U.S). These studies generally attribute relatively high rates of giving among lower income households to either the "club goods" that churches provide, or the "sect effect." Iannaccone (1992) and Zaleski and Zech (1992) propose that all church members benefit equally from club goods like bible study and social events. Thus, all strive to donate near the average amount toward their provision, regardless of income. Alternately, James and Sharpe (2007) propose that lower income individuals tend to join more exclusive "sects" that are smaller and more intensely devoted religious groups than churches. These sects require more participation and more obligatory contributions.

Some studies also find a substitutability between different charitable causes. For example, Showers et al (2011) find that Americans who give to secular charities are less likely to give to religion, and vice versa. However, this difference diminishes as income rises. For the average person, the income elasticity of giving was very low for religious and other giving, indicating that these contributions are viewed as necessities. In contrast, the income elasticity of giving was much higher for charitable, educational, and political contributions.

Regional differences in charitable giving also indicate a role for religion and political ideology. The top five most charitable states, as a proportion of gross annual income, in 2020 are: Utah, Mississippi, Alabama, Georgia, and South Carolina. Some faiths emphasize giving more than others, for example the Mormon and evangelical Christian denominations (Hoge, 1995). The prevalence of these congregations in Utah and the Southeast likely explains the high giving in these states. More generous states are also frequently "red states" in terms of political ideology. Yang and Liu (2021) conduct a meta-analysis that shows that while conservatives are more generous in total giving, liberals are more generous with regard to non-religious giving. This association between political ideology and giving weakens when religiosity is controlled for.

2

Were these and other characteristics associated with giving today also important in the past? We do not know. In contrast to the extensive studies on modern giving, we know very little about charitable giving in the past. Data availability has limited most studies of pre-twentieth-century giving to either studies of particular charities or bequests. Individual charity studies, like John E. Murray's (2013) study of the Charleston Orphan House, offer insights on charitable giving and operations. These studies cannot shed light, though, on the overall choices donors make between different charities. Wills offer fascinating insights on early giving, for example, McGranahan (2000) notes how wealth, family, and religiosity affected bequests to the poor in the seventeenth century. Such studies, though, focus only on the activities of the wealthy. This paper aims to fill this gap by using the Cost of Living Surveys conducted by the Bureau of Labor Statistics in 1918-19. These surveys provide detailed demographic, income, and spending data for thousands of working families. We can separately examine giving to church, charities, and patriotic organizations. These surveys offer a window into charitable giving in the early twentieth century.

There are reasons to believe that motives for charitable giving differed in the early 20th century, relative to today. Churches were a more important provider of social services prior to the New Deal. In 1926 religious congregations spent more than $150 million on projects outside of church maintenance and upkeep. In contrast, state and local governments spent about $60 million that year on poor relief and care for the disabled. Naturally, the New Deal increased government involvement in providing social services. Gruber and Hungerman (2007) show that New Deal spending crowded out the charitable contributions of six large Christian denominations. Jerald Schiff (1990) finds evidence that state and local welfare spending continued to crowd out aggregate giving from 1930-1964. The tax deductibility of donations has also been shown to affect modern giving (Duquette, 2016; Bradley et. al. 2005).

Looking at giving in the pre-New Deal period may also shed light on the roles of religion and political ideology on giving. Since there was no expectation, from either end of the political spectrum, that government would play a large role in social services--we might take regional differences in giving to

be driven by religious differences. We can also ignore the potential role of the tax deduction in giving, since relatively few in this time period paid any income taxes.

2. A Brief History of Household Giving in the U.S.

Mark LeClair (2014) outlines the progression of types of charities and ways of giving in U.S. history. Early colonial giving centered on local churches providing for the poor within their membership. The scope of charitable organizations gradually broadened beyond the neighborhood with eighteenth century charitable societies like the St. Andrew's Society (founded 1729) which helped Scottish immigrants in Charleston. Many fraternal organizations offered both a way to contribute to neighbors in need, and to receive help should the member need it. Beito (2000) details the work of several fraternal organizations. Some, like the Independent Order of Odd Fellows, provided sickness and funeral benefits to members (Emery and Emery, 1999). Others built and operated their own hospitals or children's homes.

Some of the charitable organizations founded in the nineteenth century would eventually grow to a nationwide scale, including the Salvation Army (1824), Boys Club (1860), and U.S. Sanitary Commission (later, the Red Cross, 1861). The United Way (1887) became an aggregator for a variety of local charities. Contributions to charity became deductible for income tax purposes through the War Revenue Act of 1917. Large foundations and corporate contributions did not play a large role in philanthropy until the early twentieth century. The Rockefeller Foundation was established in 1911, closely followed by the Carnegie Foundation in 1913. The first corporate charitable trust was established by Dayton Hudson (later Target Stores) in 1918 to promote the arts. These donations were not deductible from corporate taxes until 1936.

Even as secular charities began attracting donations in the nineteenth century, church membership increased dramatically. Finke and Stark (1986) estimate that church adherence grew from 14% in 1800 to 45% in 1890. Church membership continued to grow throughout the twentieth century before leveling off

in the 1960s and declining in the last twenty years (Jones, 2021). Even with recent membership declines, real giving to religion has increased—from $409 bill in 1981-85 to $657 bill in 2016-20 (2020 dollars). As a proportion of total giving, religious giving has declined from 58% to 29%. It appears that proportional declines in religious giving have been offset by large increases in giving to other causes like education and the environment (Giving USA, 2021).

3. WWI Era Giving

In the early-twentieth century time period we are focusing on, church membership was fairly strong and growing, with an estimated adherence rate of 53% in 1916. And many churches were still active in providing social services. Participation in World Wars, though, may have temporarily diverted some donations that would otherwise go to churches. Dumenil (2011) notes that many charitable and fraternal organizations adapted their missions toward war work with U.S. participation in World War I. In 1914, the Red Cross was a small organization providing aid to sick and wounded soldiers in Europe, along with disaster relief. By 1918, nearly one-third of the U.S. population was either a donor or volunteer for the Red Cross. At the request of the federal government the Red Cross provided military hospitals abroad. Among many other projects the Red Cross sent aid to civilian victims of the war, provided soldiers with comfort kits, aided military families, and sent nurses to assist with the influenza pandemic. Similarly, the YWCA traditionally assisted young working women with training, housing, and morality education. During the war the group pivoted toward: training women to do men's work, providing housing for those in government and canning work, and a joint campaign with the YMCA and the federal government to prevent sexually-transmitted disease.

Other patriotic groups were formed during the war to ferret out enemies, spies, and draft dodgers (Capozzola, 2008). Members of the American Protective League (APL) paid dues of $0.75 to submit reports to the Justice Department on friends and neighbors who seemed insufficiently pro-war or anti-German. This group alone grew to more than 250,000 members. Other groups, like the Boy Spies of

America and American Defense Society, similarly relied on volunteers motivated by patriotism and nativism (Nilsson, 2022). Along with more traditional war charities, these groups attracted donations and volunteers.

Along with changes in charitable organizations in response to World War I, Liberty Bonds were extensively sold as an important investment for everyone to contribute to the war effort. This extraordinary campaign appears to have noticeably decreased consumption spending, while increasing personal savings, during the period of US involvement in World War I (Sutch, 2014). We might expect some of the motivation for buying war bonds was charitable, perhaps even crowding out giving to patriotic organizations and other charities.

The peak of the influenza pandemic during the fall of 1918 may also have affected both charitable contributions and investments in Liberty Bonds. The pandemic itself increased the number of orphans, for example, who would need support. Even as charitable needs were growing, as a result of the pandemic, many cities closed churches and canceled Liberty Bond parades. Hilt and Rahn (2020) show that proximity to military camps increased mortality in the peak influenza month of October 1918. This, in turn, limited participation in the Fourth Liberty Loan. Short (2022) also finds that the influenza pandemic increased demand for industrial life insurance in the months following peak mortality. Spending on ordinary insurance was unaffected, though, perhaps because it was more difficult to obtain due to the required medical exam. The main obstacle to giving during the influenza pandemic would have been public health restrictions that closed churches and public gatherings. Potentially, though, we can use variations in mortality or the use of public health policies to clarify the extent of pandemic disruption on giving in this time period.

3. The 1918-19 Cost of Living Surveys

In 1918 and early 1919, the Bureau of Labor Statistics conducted a survey of urban families in 92 cities throughout the U.S. The purpose of the survey was to estimate the cost of living for the typical

American family, to use as the basis for wartime wage adjustments. Only households including husband, wife, and at least one child were eligible for the survey. Sample families were selected from employer records of wage and salary workers. For inclusion in the study, salary earners were limited to $2,000 per year but wages and other income were not limited (US Department of Labor, 1918). Feigenbaum (2015) finds that the survey provides a representative, if slightly younger sample of white urban middle-class families, relative to the 1920 census. Respondents were asked detailed questions about the household's income and spending over the last year. Given the long observation period, recall bias is a potential issue, particularly with regard to occasional expenditures like giving. However, during this period there was an unusual amount of attention on making sacrifices for the war effort. This may have made giving more front-of-mind than usual.

In particular, we'll be interested in reported spending on "church and other religious organizations," "charity," and "patriotic organizations." The instructions for surveyors on church spending noted that this should include: "contributions to church, pew rent, christening fees, YMCA and YWCA, Salvation Army, etc." Note that for some of these contributions (pew rent and christening fees) the donor received some benefit or service. The others seem more strictly philanthropic. Note too that religious organizations, like the YWCA, also provided services related to the war that might be considered "patriotic." Thus, the lines between the different types of charitable spending are somewhat blurred. The instructions on the charity category simply emphasize that charity should not include payments to anyone within the family. We expect that contributions to patriotic organizations would include both contributions to the Red Cross and organizations like the American Protective League.

Along with spending on different items, the Cost of Living Survey reports family income and whether the family ran a "surplus" or "deficit" for the year prior to the survey. Fortunately, Martha Olney (1995) has digitized the reported use of surplus, or savings, reported by families in this survey. We can categorize whether families used their savings to buy war bonds or stamps, invest in cash (including bank accounts, prepaying bills or paying on prior year debts), or invest in other assets (including land, stocks,

and bonds). This should allow us to look for relationships between buying War Bonds and giving to patriotic organizations or other charities.

Table 1 shows characteristics of the 12,815 (two observations dropped due to likely transcription error) urban families surveyed in 1918 and 1919, by income quintile. At the top of the table, we see that higher income families tend to have an older head and more children in the household. These households are also more likely to own their home, and far less likely to be black. The average family in the survey contributes a total of 1.26% of income to church, charity, and patriotic organizations. For comparison, Giving USA estimates that from 1980 to 2020, average giving ranged from 1.7% to 2.4% of disposable income. Given that the 1918-19 surveys focus only on middle-class households, 1.26% seems fairly comparable to modern giving. In addition, average income increased dramatically over the century--real GDP per capita in 1919 was less than one-sixth of the level in 2020. So compared to today, giving 1.26% from a much smaller real income to charity seems quite generous.

For all types of giving, contributions strictly increase with income. Giving also generally increases as a proportion of income, although church giving remains quite flat at the lower end of the income distribution. This contrasts with the U-shaped relationship we expect from studies of contemporary giving. These studies generally attribute relatively high rates of giving among lower income households to the club goods that churches provide, or the sect effect. There are reasons to believe these effects were not as strong earlier in the century, which we will further consider below.

Contributions to patriotic organizations make up an impressive amount of total contributions, second only to church and religious giving. The degree of participation, as shown by the proportion contributing, is practically universal for patriotic organizations. Investment in war bonds is also by far the largest use of savings in this time period. By most accounts, the government's approach to selling war bonds through advertising, volunteer "four-minute men" pitches during reel changes at movie theaters, and massive bond parades was a success. Every bond issue was oversubscribed. While many were happy to contribute in the spirit of patriotism, the reluctant faced enormous social pressure. An editorial in the

8

Orange Judd Farmer notes that "complaints reach us from farmers who have been practically forced by bulldozing methods to give up more money to the Red Cross or to invest more in Liberty bonds than he feels able to do." Oregon librarian and pacifist Louise Hunt was forced to resign shortly after the *Portland Evening Telegram* broke the story that she refused to buy a Liberty Bond. Within days, all Multnomah County employees were required to sign a loyalty oath (Jensen, 2019).

Preliminary analysis of Table 1 indicates that early twentieth-century giving was substantial. Contributions of all types vary with income, but religious giving does not appear as responsive to income as other types of giving. Patriotic giving was particularly prevalent in this time period. This led to our observation that different motivations affect different types of giving. Religious givers may give from altruistic motives, but also to contribute to services that they receive. Patriotic givers may give from sincere belief in the cause, but also due to intense social pressure. This suggests that it is important to analyze different types of giving separately—we lose some insight by aggregating to total giving. In this respect, we'll follow the example of James and Sharpe (2007) and Showers et. al. (2011) on contemporary giving. Of course, to clarify the effect of income and other factors on giving, we need regression analysis to hold other factors constant.

4. Double Hurdle Model

For our regression approach, we'll follow the approach of Showers et. al. (2011) and many others in using a double hurdle model, developed by Cragg (1971) to estimate household charitable giving of a particular type (church, charity, or patriotic). These models in essence divide the giving decision into two parts, or tiers: participation and amount. In the first tier, households decide whether to give or not. In the second tier, those who participate decide how much to give. In the context of giving, for example to religion, we can think of two reasons for zero giving: non-participation and a corner solution. Non-participants, for various reasons, may not belong to a church. For that reason, they do not even consider church giving, thus they fail to clear the first hurdle. Some church members, though, could choose zero

giving due to income and relative prices. This is a corner solution, where the household clears the first hurdle (would give), but not the second hurdle (chooses not to give). Compared to alternatives like the Heckman or Tobit models, double hurdle models are more flexible. The Heckman sample selection model, for example, assumes that zeroes are due only to non-participation. Cragg's models can incorporate both non-participation and corner solutions. Unlike the Tobit model, the signs on coefficients for participation and amount are not constrained to be the same. Nor are the relative effects of any two variables constrained to be the same in both stages of the decision.

More precisely, we'll utilize a lognormal hurdle model. The estimation follows two steps. First, participation is modeled by a probit. Then the amount, for givers, is estimated using an ordinary least squared regression of the log of giving. From this, we can estimate the probability of giving, the amount conditional on giving, and the unconditional amount given. Wooldridge (2009) derives the expected values, from which we can derive average marginal effects and elasticities. Roughly following his notation, call C the unconditional contribution, p the probability of giving, and c the amount conditional on giving. We can express C as:

$$C = p \; x \; c = 1[\boldsymbol{x}\gamma + v > 0] \exp(\boldsymbol{x}\beta + u)$$

Where γ are the estimated probit coefficients, β are the estimated OLS coefficients, and v and u are independent with a bivariate normal distribution. c has a lognormal distribution since:

$$c = \exp(\boldsymbol{x}\beta + u)$$

$$u|x \sim Normal(0, \sigma^2)$$

Log-likelihood tests for our data indicate that this specification is preferred to either a truncated normal hurdle or Tobit model. The expected values and average partial effects can be calculated as:

	Expected value:	Average partial effect for x_j:
Probability, $p = \Pr(c > 0)$	$\Phi(\boldsymbol{x}\gamma)$	$\phi(\boldsymbol{x}\gamma)\,\gamma_j$
Conditional amount, $c = E(C|C>0)$	$e^{\boldsymbol{x}\beta + \frac{\sigma^2}{2}}$	$e^{\boldsymbol{x}\beta + \frac{\sigma^2}{2}}\,\beta_j$

10

Note that the coefficients γ_j and β_j will *not* represent the marginal effects of the variable x_j, as we must transform them as shown in the table above. However, the coefficient β_j *does* represent the semi-elasticity of the conditional amount. In other words, it represents the percentage increase in the amount, for givers, from a one-unit increase in the independent variable. Elasticities are similarly calculated using either the partial derivatives (as estimated by STATA's margins command) or simply adding 10% to the variable of interest and calculating the percentage change in predicted values (Mather and Mason-Wardell, 2020).

5. Results

Table 2 shows the coefficients and Table 3 shows the marginal effects on the probability of any giving, the amount contributed by givers, and the total (unconditional) amount of giving for three types of giving: church, charity, and patriotic. For church and charitable giving, both the probability of giving and the amount given increase with age and wealth, as estimated by home ownership. To look for a U-shaped relationship between income and giving, I categorize the total income of each family into quintiles. For all types of giving, the amount given increases steadily with income. The probability of giving also unambiguously increases with income, with one exception: the probability of giving to church declines slightly between the third and fourth quintiles, from 26% more likely to 24% more likely to give to church than a family in the first quintile. We can translate the total effect of income into dollars given, using the total (unconditional) column in Table 3. This shows that, combining the effects of probability and amount, a family in the second income quintile gives $2.54 more to religion than a family in the first quintile. These amounts increase at each income quintile, in contrast to the U-shaped effect we see in modern giving.

Black families are 12% more likely than white families to give to a church or religious organization, and 7% less likely to give to patriotic organizations. This is not surprising, given that black men were limited to only menial jobs in military service. More children in the household increases the probability of giving to church, but reduces the amount given. The total effect of an additional child in

the household is to reduce church giving by about $0.23. Additional children also reduces the likelihood and amount given to other causes. These results are fairly similar to those found by Showers et. al. on modern giving. One exception, though, is their finding that black-headed households that give to a church *also* give larger amounts than white-headed households.

Region very strongly affects the probability and amount given to churches and religious organizations. Graph 1 shows the predicted probability of giving to religious causes by region, holding household characteristics at their means. The probability of giving to church declines steadily, from 88% to 55%, as one moves east to west. Households in the New England region are most likely to give to religion, in contrast to studies of modern giving that typically show the southeastern states to be the most generous. Church membership rates, by region, have changed substantially over the 20th century and this likely explains the change in giving behavior. We further consider the long-term change in regional religious preferences in the next section. Region does not play as large a role in giving to charity or patriotic organizations. The amounts given to patriotic organizations, though, are significantly larger for northern and western households, relative to those in New England. This could reflect higher enlistment rates in these regions. However, when state enlistment rate was included as a variable, it had a positive but non-statistically significant effect on both the probability and amount given to patriotic organizations.

There are also interesting relationships between different types of giving, shown at the bottom of Tables 2 and 3. I include giving to charity as a possible close substitute for religious giving. Church and patriotic giving are included as possible substitutes for charitable giving. Finally, investing in war bonds is included as a possible close substitute for patriotic contributions. Giving to charity increases both the probability of giving to church and the amount given. The total effect of giving to charity is to increase the amount given to religious organizations by about $2.50. Similarly, buying war bonds increases both the probability of giving and amount given to patriotic organizations. Thus, it appears that giving to similar types of charities is complementary. The only evidence of substitution, or crowding out, between

12

charities is the relationship between giving to church or patriotic organizations and the amount given to charity. The total effect is that a family that gives to patriotic organizations gives $0.28 less to charity.

For each of these potential substitutes, an interaction with earnings is also included in the analysis, as in Showers, et.al. (2011). These results are shown in tables 4 and 5. The interaction between giving to charity and earnings has a significantly negative impact on the amount given to religious organizations. This suggests that the degree of complementarity between charity and religious giving is muted somewhat by income. At the same time, the slightly negative relationship we found between giving to patriotic organizations and giving to charity loses significance once we include the interaction with earnings. Our findings contrast with studies on modern giving which typically show a negative relationship between church and other types of giving. This may reflect the larger differences in the types of giving examined in recent studies, which include gifts to educational institutions and political contributions. In the time period we are considering, there may simply be more overlap in the goals of church, charitable, and patriotic organizations.

One concern with our study is that giving could have been hindered by public health restrictions during the influenza epidemic. Some households were surveyed for the period before the most deadly second wave of the pandemic, and others after. This variation allows us to test whether giving amounts were noticeably smaller after the flu (for observations covering periods ending October 2018-February 2019) relative to before (for observations covering periods ending before October 2018). A dummy variable for households surveyed for the period after the flu was negative, but not statistically significant. Further complicating this analysis is the fact that the BLS did not sample households in a geographically random way. Some regions were only surveyed before the flu, and others were only surveyed after. When we limit the sample to just those regions surveyed both before and after the flu (New England, Mid Atlantic, South Atlantic, East North Central, and Pacific) again the post-flu variable remains negative but not statistically significant.

Table 6 shows some elasticity estimates. The probability of any giving, especially to church and patriotic organizations was particularly unresponsive to income. This result is fairly comparable to those found by Showers et al (2011) on more modern data, although they find larger (>1) income elasticities for the probability of giving to education or politics. Conditional on giving, the amounts given are more elastic, though still inelastic for church and religious giving. It is interesting to note that an increase in income had a much larger effect on the amount given to patriotic organizations, relative to church giving.

6. Discussion

The cost of living surveys provide a rare window on early twentieth-century giving. The results provide an interesting comparison to, and may help us understand, modern giving. First, we found that middle-class households surveyed in 1918-19 reported giving, on average, 1.26% of household income to church, charity, or patriotic organizations. While a bit lower than the average proportion given by modern households, this proportion still seems fairly generous given the lower average incomes at the time. In fact, we might worry that this apparent generosity is quite atypical for the early 20th century, due to the unusual convergence of U.S. participation in WWI and the influenza epidemic. Patriotic giving, at an average of 0.5% of income, must have been unusually large in the period we observe given the public appeals to contribute to the war effort. Such giving was nearly universal, and unaffected by the state enlistment rate. Similarly, we surmised that the flu epidemic could have hindered some charitable giving due to public health restrictions like church closures. However, we did not find any evidence that households surveyed after the worst of the pandemic were less likely to give, or gave less, than those surveyed before the pandemic.

We also found evidence that giving to church and religious organizations was complementary to charitable giving. Also, giving to patriotic organizations was complementary to investing in war bonds. Hence, there was no crowding out effect between similar organizations even as households navigated appeals from many different organizations. It is impressive that households that invested heavily in war

bonds also answered the call to donate to the Red Cross and similar organizations. This finding contrasts somewhat with modern studies that show substitution between giving to church and other charities. However, these studies look at very different organizations (church vs. political giving, for example) where we might expect a stronger substitution effect.

We find two results that differ from modern giving. First, we find a strictly positive relationship between income and giving, rather than a U-shaped one. Second, we find that the regions associated with the highest rates of giving have changed markedly over the course of the century. On the role of income on giving, we can speculate that the factors that might explain high rates of giving among lower-income families today did not apply earlier in the century. In particular, churches may not have provided many club goods to members at the time, choosing instead to focus efforts on outside philanthropy. Prior to the New Deal churches certainly carried more of the load of providing social services to the poor, so perhaps as a result, members gave according to income.

Alternately, perhaps the sect effect is a modern phenomenon. Recall that this is the theory that low income households give a lot today because they tend to join more demanding sects. While it might seem that religions change slowly over time, over the course of a century many denominations are created and some grow rapidly while others decline. Finke and Stark (2005) note that the Mainline American denominations have declined "since at least 1776." In the twentieth century, the market share of large Mainline Protestant denominations like the United Methodists and Presbyterian Church fell steadily by 50-60% from 1940 to 2000. Meanwhile, conservative Evangelical groups grew, like the Southern Baptists (by 37%) and Assemblies of God (by 221%). Along with Kelley (1972) and Iannaccone (1994), Finke and Stark argue that costly religions, that place high demands on members, tend to grow at the expense of mainline religions (that ask too little of members). Although costly in terms of the participation and donations expected, these groups may be attractive for a variety of reasons. First, churchgoers may have a more positive experience in a church full of enthusiastic members relative to a half-empty one. Second, more donations may allow a church to lavish services on members. To the

extent that Evangelical denominations do ask more of members and tend to attract lower-income families, much of the growth in these groups occurred in the *second* half of the twentieth century. Therefore, perhaps it is not surprising that we do not see evidence of a "sect effect" among lower income families earlier in the century.

This long run change in religious preferences also likely explains the regional change in giving rates. Recall that we found that the probability of any church giving in 1918-19 decreases steadily as the household moves from east to west. In contrast, today the most generous states are in the Southeast and Utah. Any church giving likely follows church membership or adherence rates. For the modern period, the Southeast and Utah have fairly high church membership rates, see Graph 2 for 1990 from Gaustad and Barlow (2001). In this map, we see the well-known "bible belt" but also the lesser known "twisted suspender" up the center of the country. The eastern regions (New England, Mid-Atlantic, East North Central) and the West in recent decades tend to have relatively low church membership rates.

The Evangelical denominations have also expanded, at the expense of mainline Protestant groups, particularly in the South. Gaustad and Barlow (2001) use the Census of Religious Bodies and Current Population Surveys to note that the South was fairly evenly dominated with Baptists and Methodists in 1890. By 1936, Baptists have further consolidated the South and spread north and west. By 1970, the Methodist presence in the South is minor. While mainline Protestant groups have similarly declined in New England, the Evangelical groups have not made major advances there.

In recent years, the association between region and religion has grown even stronger, even as adherence rates decline. Table 7 shows recent changes in adherence to Protestant denominations in New England and the South. While population has grown in both regions, the share of the total population living in the South increased, while the share living in New England declined. In both regions, the proportion of the population adhering to the dominant religion (Mainline Protestant in New England, Evangelical Protestant in the South) declined steadily from 1980 to 2020. Yet, the proportion of all

Evangelical Protestants living in the South has remained steady, at about 75%. The link between region and religion remains strong.

Studies of household giving frequently focus on measuring the effects of sudden changes, like a change in tax policy or the New Deal. At the same time, it is important to note the long-term effects of slow changes on giving. Today's U-shaped pattern of giving by income and high rates of giving in the Bible Belt are modern phenomena—which likely evolved slowly over time as religious preferences changed.

American Red Cross, "World War I and the American Red Cross."
https://www.redcross.org/content/dam/redcross/National/history-wwi.pdf

Andreoni, James. "Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence." *Journal of Political Economy* 97 no. 6 (1989): 1447–1458.

Azzi, Corri and Ronald G. Ehrenberg. "Household Allocation of Time and Church Attendance." *Journal of Political Economy* 83 no. 1 (1975): 27-56.

Becker, Gary. "A Theory of Social Interactions." *Journal of Political Economy* 82 no.6 (Nov. 1974): 1063–1093.

Beito, David T. *From Mutual Aid to Welfare State: Fraternal Societies and Social Services, 1890-1967.* Chapel Hill: University of North Carolina Press, 2000.

Bradley, Ralph, Stephen Holden, and Robert McClelland. "A Robust Estimation of the Effects of Taxation on Charitable Contributions." *Contemporary Economic Policy* 36 no. 4 (Oct 2005): 545-554.

Brooks, Arthur C. *Who Really Cares: The Surprising Truth about Compassionate Conservatism.* New York: Basic Books, 2006.

Capozzola, Christopher. *Uncle Sam Wants You: World War I and the Making of the Modern American Citizen.* New York: Oxford University Press, 2008.

Carroll, James, Siobhan McCarthy, and Carol Newman "An Econometric Analysis of Charitable Donations in the Republic of Ireland." *The Economic and Social Review* 36 vol. 3 (2005): 229-250.

Cragg, John G. "Some Statistical Models for Limited Dependent Variables with Application to the Demand for Durable Goods." *Econometrica* 39 no. 5 (Sep 1971): 829-844.

Dumenil, Lynn "Women's Reform Organizations and Wartime Mobilization in World War I-era Los Angeles." *The Journal of the Gilded Age and Progressive Era* 10 no. 2 (Apr 2011): 213-245/

Duquette, Nicolas J. "Do Tax Incentives Affect Charitable Contributions? Evidence from Public Charities' Reported Revenues." *Journal of Public Economics* 137 (May 2016): 51-69.

Emery, George and J.C. Herbert Emery. *A Young Man's Benefit: The Independent Order of Odd Fellows and Sickness Insurance in the United States and Canada, 1860-1929.* Montreal: McGill-Queen's University Press, 1999.

Fiegenbaum, James J. "Intergenerational Mobility during the Great Depression." Working Paper, December 1, 2015. https://scholar.harvard.edu/jfeigenbaum/publications/jmp

Finke, Roger and Rodney Stark. "Turning Pews into People: Estimating 19th Century Church Membership." *Journal for the Scientific Study of Religion* 25 no.2 (Jun 1986): 180-192.

Gaustad, Edwin Scott and Philip L. Barlow. *New Historical Atlas of Religion in America.* Oxford University Press, 2001.

Giving USA *Annual Report, 2021*.

Glazer, Amihai and Kai A. Konrad. "A Signaling Explanation for Charity." *The American Economic Review* 86 no. 4 (Sep. 1996): 1019-1028.

Gruber, Jonathan and Daniel M. Hungerman. "Faith-based Charity and Crowd-out During the Great Depression." *Journal of Public Economics* 91 no. 5 (Jun. 2007): 1043-1069.

Hilt, Eric and Wendy Rahn. "Financial Asset Ownership and Political Partisanship: Liberty Bonds and Republican Electoral Success in the 1920s." *Journal of Economic History* 80 no. 3 (Sep 2020): 746-781.

Hoge, Dean R. "Explanations for Current Levels of Religious Giving." In *Cultures of Giving: How Region and Religion Influence Philanthropy* edited by Charles H. Hamilton and Warren F. Ilchman. San Francisco: New Directions for Philanthropic Fundraising, Jossey-Bass Inc., 1995

Iannaccone, Laurence R. "Sacrifice and Stigma: Reducing Free-Riding in Cults, Communes, and Other Collectives." *Journal of Political Economy* 100 no. 2 (1992): 271-97.

Iannaccone, Laurance R. "Why Strict Churches are Strong." *American Journal of Sociology* 99 no. 5(1994): 1180-1211.

James III, Russell N. and Deanna L. Sharpe, "The 'Sect Effect' in Charitable Giving: Distributive Realities of Exclusively Religious Givers." *American Journal of Economics and Sociology* 66 no. 4 (Oct. 2007): 697-726

Jensen, Kimberly. "A 'Disloyal' and 'Immoral' Woman 'In Such a Responsible Place': M. Louise Hunt's Refusal to Purchase a Liberty Bond, Civil Liberties, and Female Citizenship in the First World War." *Peace & Change* 44 no. 2 (Apr. 2019): 139-168.

Jones, Jeffrey M. "U.S. Church Membership Falls Below majority for First Time." Gallup: March 29, 2021.
https://news.gallup.com/poll/341963/church-membership-falls-below-majority-first-time.aspx

Kelley, Dean M. *Why Conservative Churches Are Growing: A Study of Sociology in Religion*. New York: Harper and Row, 1972.

Kitchen, Harry. "Determinants of Charitable Donations in Canada: A Comparison over Time." *Applied Economics* 24 (1992): 709-713.

LeClair, Mark S. *Philanthropy in Transition*. New York: Palgrave Macmillan, 2014.

Mather, David and Nicole Mason-Wardell. "Module 12: Double Hurdle Models." Feed the Future Innovation Lab for Food Security Policy, 2020.

McGranahan, Leslie Moscow. "Charity and the Bequest Motive: Evidence from Seventeenth-Century Wills." *The Journal of Political Economy* 108 no. 6 (Dec. 2000): 1270-1291.

Murray, John E. *The Charleston Orphan House: Children's Lives in the First Public Orphanage in America.* Chicago: The University of Chicago Press, 2013.

Nilsson, Jeff. "Neighborhood Narcs: The Story of the American Protective League." *The Saturday Evening Post*, January 24, 2022.

Olney, Martha L. "Saving and Dissaving by 12,817 American Households, 1917-1919" [Computer file]. Amherst, MA: Martha L. Olney, University of Massachusetts [producer], 1993. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 1995.

Orange Judd Farmer, "Subscribing to Liberty Bonds." Dec. 29, 1917, pg. 19.

Schiff, Jerald. *Charitable Giving and Government Policy: An Economic Analysis*. New York: Greenwood Press, 1990.

Short, Joanna. "The Effect of the 1918 Influenza Pandemic on U.S. Life Insurance Holdings." In *Standard of Living—Essays on Economics, History, and Religion in Honor of John E. Murray*. Springer: Studies in Economic History edited by Gray, Hall, Herndon, and Silvestre, 2022.

Showers, Vince E., Linda S. Showers, Jeri M. Beggs, and James E. Cox, Jr. "Charitable Giving Expenditures and the Faith Factor." *American Journal of Economics and Sociology* 70 no. 1 (Jan. 2011): 152-186.

Sutch, Richard. "Financing the Great War: A Class Tax for the Wealthy, Liberty Bonds for All." Paper prepared for the Thirty-Ninth Annual Meeting of the Social Science History Association, Toronto, Canada Nov. 6-9, 2014.

U.S. Department of Labor, Bureau of Labor Statistics. *Cost of Living 1918 Instructions*, 1918.

U.S. Department of Labor, Bureau of Labor Statistics. *Cost of Living in the United States, 1917-1919*. ICPSR Study #8299.

Wooldridge, Jeff. "Hurdle and 'Selection' Models." BGSE/IZA course in Microeconometrics, July 2009.

Yang, Yongzheng and Peixu Liu. "Are Conservatives More Charitable than Liberals in the U.S.? A Meta-analysis of Political Ideology and Charitable Giving." *Social Science Research* 99 (2021): 1-17.

Zaleski, Peter A. and Charles E. Zech. "Determinants of Contributions to Religious Organizations: Free Riding and Other Factors." *American Journal of Economics and Sociology* 51 no. 4 (Oct. 1992): 459-472.

Table 1:

Household Characteristics of Cost of Living Survey Families, by Income Quintile

| | Quintiles of Total Family Income | | | | | |
| | 1st | 2nd | 3rd | 4th | 5th | All |
	to $1147	to $1326.50	to $1526.40	to $1811.95	$1812 +	
Means:						
Income	$998.41	$1,240.93	$1,421.89	$1,653.36	$2,146.94	$1,492.21
Head Age	35.66	35.70	36.39	37.14	40.02	36.98
Number Children	2.23	2.36	2.47	2.58	3.05	2.54
Percentages:						
Black	19.10%	7.42%	3.71%	1.91%	1.01%	6.60%
Owner	15.04%	21.70%	25.56%	29.89%	36.79%	25.80%
Contributions to: (% avg income)						
Church and Religion	6.30 (0.63%)	7.77 (0.63%)	9.41 (0.66%)	10.74 (0.65%)	15.66 (0.73%)	9.97 (0.67%)
Charity	0.56 (0.06%)	0.82 (0.07%)	1.22 (0.09%)	1.39 (0.08%)	2.62 (0.12%)	1.32 (0.09%)
Patriotic Organizations	3.61 (0.36%)	5.47 (0.44%)	7.10 (0.50%)	8.70 (0.53%)	12.43 (0.58%)	7.46 (0.50%)
Total	10.47 (1.05%)	14.06 (1.13%)	17.73 (1.25%)	20.83 (1.26%)	30.71 (1.43%)	18.75 (1.26%)
Investment in:						
War bonds	24.68 (2.5%)	45.14 (3.6%)	62.36 (4.4%)	86.63 (5.2%)	140.29 (6.5%)	71.81 (4.8%)
Cash	9.78 (1.0%)	17.77 (1.4%)	24.24 (1.7%)	41.67 (2.5%)	76.87 (3.6%)	34.06 (2.3%)
Stocks, bonds, land	0.99 (0.1%)	2.63 (0.2%)	4.55 (0.3%)	6.43 (0.4%)	14.21 (0.7%)	5.76 (0.4%)
Proportion with any contributions to:						
Church and Religion	65.47	70.77	72.77	72.45	77.84	71.86
Charity	21.36	25.49	30.28	31.72	40.07	29.78
Patriotic Organizations	77.51	86.73	90.32	91.88	94.81	88.25

Table 2:
Probit and Truncated Regression Coefficients for Contributions to Church, Charity, and Patriotic Organizations

	Church & Religious		Charity		Patriotic Orgs	
	Probit	Trunc Reg	Probit	Trunc Reg	Probit	Trunc Reg
Hus Age	0.013***	0.013***	0.005***	0.008***	0.001	0.005***
Black	0.443***	-0.010	0.003	-0.355***	-0.349***	-0.421***
# children	0.044***	-0.038***	-0.072***	-0.081***	-0.058***	-0.068***
Owner	0.274***	0.255***	0.086***	0.057*	0.039	0.085***
Income Q2	0.180***	0.156***	0.132***	0.190***	0.250***	0.264***
Income Q3	0.262***	0.281***	0.277***	0.403***	0.401***	0.450***
Income Q4	0.244***	0.423***	0.320***	0.546***	0.471***	0.627***
Income Q5	0.311***	0.668***	0.549***	0.866***	0.751***	0.982***
MidAtlantic	-0.334***	-0.183***	0.155***	-0.025	-0.185***	0.087***
South Atl	-0.525***	-0.418***	0.242***	0.006	-0.525***	0.069**
ENC	-0.607***	-0.322***	0.370***	0.094	0.104*	0.421***
WNC	-0.780***	-0.326***	0.137***	0.235***	0.042	0.294***
ESC	-0.571***	-0.269***	-0.011	0.271***	-0.116	0.263***
WSC	-0.830***	-0.395***	0.211***	0.150*	0.032	0.241***
Mount	-0.932***	-0.526***	-0.064	0.266***	0.560***	0.638***
Pac	-1.088***	-0.285***	-0.122**	0.203***	0.451***	0.447***
Charity	0.379***	0.091***				
Church			0.376***	-0.077**		
Patriotic			0.069*	-0.240***		
War Bonds					0.244***	0.138***
LL function	-7,058.2	-12,621.2	-7,449.0	-5,039.4	-4,141.0	-12,621.2
N	12,815	9,208	12,815	3,817	12,815	11,309
% correct	72.76%		70.58%		88.42%	

Omitted variables = Income in quintile 1, New England
*** = significant at 0.01 level
** = significant at 0.05 level
* = significant at 0.10 level

Table 3:
Average Marginal Effects from a One-Unit Change in the Explanatory Variable,
By Giving Category

	Church & Religious			Charity			Patriotic Orgs		
	Prob	Amt	Total	Prob	Amt	Total	Prob	Amt	Total
Hus Age	0.004***	0.176***	0.186	0.002***	0.037***	0.021	0.000	0.043***	0.040
Black	0.123***	-0.134	1.402	0.001	-1.308***	-0.461	-0.072***	-3.048***	-3.148
# children	0.014***	-0.533***	-0.233	-0.024***	-0.349***	-0.234	-0.010***	-0.600***	-0.620
Owner	0.082***	3.761***	4.040	0.029***	0.249*	0.224	0.007	0.752***	0.739
Income Q2	0.054***	2.318***	2.538	0.044***	0.883***	0.556	0.041***	2.559***	2.671
Income Q3	0.078***	4.354***	4.513	0.094***	2.012***	1.301	0.063***	4.639***	4.805
Income Q4	0.073***	6.859***	6.463	0.110***	2.843***	1.760	0.072***	6.815***	6.953
Income Q5	0.092***	11.332***	10.358	0.194***	4.635***	2.971	0.103***	11.520***	11.768
MidAtlantic	-0.108***	-2.448***	-3.116	0.052***	-0.105	0.200	-0.035***	0.785***	0.471
South Atl	-0.174***	-5.105***	-5.602	0.083***	0.027	0.392	-0.113***	0.625**	-0.272
ENC	-0.199***	-4.164***	-5.347	0.128***	0.417	0.762	0.018*	4.199***	4.016
WNC	-0.267***	-4.042***	-5.840	0.046**	1.120***	0.659	0.007	2.912***	2.742
ESC	-0.194***	-3.384***	-4.625	-0.004	1.328***	0.451	-0.022	2.598***	2.208
WSC	-0.288***	-4.694***	-6.330	0.072***	0.693*	0.628	0.006	2.358***	2.217
Mount	-0.325***	-5.915***	-7.286	-0.021	1.301***	0.340	0.074***	7.459***	7.701
Pac	-0.379***	-3.593***	-6.843	-0.039**	0.954***	0.121	0.064***	4.677***	4.907
Charity	0.114***	1.294***	2.496						
Church				0.119***	-0.341**	0.462			
Patriotic				0.023*	-1.147***	-0.279			
War Bonds							0.046***	1.156***	1.358

Omitted variables = Income in quintile 1, New England

23

Table 4:
Probit and Truncated Regression Coefficients for Contributions to Church, Charity, and
Patriotic Organizations

	Church & Religious		Charity		Patriotic Orgs	
	Probit	Trunc Reg	Probit	Trunc Reg	Probit	Trunc Reg
Hus Age	0.0126***	0.0119***	0.0044***	0.0081***	0.0013	0.0041***
Black	0.4099***	-0.0073	0.0081	-0.3506***	-0.3463***	-0.4285***
# children	0.0435***	-0.0437***	-0.0776***	-0.0925***	-0.0609***	-0.0766***
Owner	0.2811***	0.2678***	0.0966***	0.0758**	0.0545	0.1066***
Earnings	0.0002***	0.0006***	0.0005***	0.0009***	0.0010***	0.0009***
MidAtlantic	-0.3301***	-0.1848***	0.1516***	-0.0332	-0.1974***	0.0839***
South Atl	-0.5240***	-0.4081***	0.2465***	0.0288	-0.5229***	0.0810**
ENC	-0.6014***	-0.3120***	0.3759***	0.1117*	0.1014*	0.4311***
WNC	-0.7689***	-0.3120***	0.1486***	0.2647***	0.0425	0.3102***
ESC	-0.5696***	-0.2569***	-0.0034	0.2794***	-0.1074	0.2789***
WSC	-0.8267***	-0.3725***	0.2311***	0.1967**	0.0423	0.2704***
Mount	-0.9313***	-0.5330***	-0.0643	0.2774***	0.5554***	0.6405***
Pac	-1.0694***	-0.2658***	-0.1058*	0.2372***	0.4595***	0.4764***
Charity	0.4569***	0.3188***				
Char*Earn	-0.0001	-0.0002***				
Church			0.3202***	-0.1861		
Church*Earn			0.0000	0.0001		
Patriotic			0.1238	0.2576		
Patr * Earn			-0.0000	-0.0004***		
War Bonds					0.9118***	0.1995***
War*Earn					-0.0005***	-0.0000
LL function	-7,070.8	-12,594.5	-7,433.1	-5,038.7	-4,134.6	-13,298.9
N	12,815	9,208	12,815	3,817	12,815	11,309
% correct	72.72%		70.58%		88.38%	

Omitted variable = New England
*** = significant at 0.01 level
** = significant at 0.05 level
*   = significant at 0.10 level

24

Average Marginal Effects from a One-Unit Change in the Explanatory Variable,
By Giving Category

	Church & Religious			Charity			Patriotic Orgs		
	ME prob	ME amt	ME total	ME prob	ME amt	ME total	ME prob	ME amt	ME total
Hus Age	0.0039***	0.1691***	0.1803	0.0014***	0.0354***	0.0196	0.0002	0.0363***	0.0349
Black	0.1148***	-0.1031	1.3324	0.0027	-1.3005***	-0.4617	-0.0715***	-3.1064***	-3.1974
# children	0.0136***	-0.6027***	-0.2991	-0.0255***	-0.3834***	-0.2466	-0.0107***	-0.6493***	-0.6672
Owner	0.0846***	3.9784***	4.2443	0.0322***	0.3332**	0.3092	0.0095	0.9572***	0.9477
Earnings	0.0001***	0.0067***	0.0070	0.0002***	0.0030***	0.0018	0.0001***	0.0072***	0.0074
MidAtlantic	-0.1071***	-2.475***	-3.1238	0.0510***	-0.1423	0.1798	-0.0371***	0.7621***	0.4329
South Atl	-0.1743***	-5.0085***	-5.5381	0.0844***	0.1262	0.4430	-0.1123***	0.7374**	-0.1710
ENC	-0.1970***	-4.0585***	-5.2582	0.1300***	0.4988**	0.8112	0.0173*	4.3424***	4.1481
WNC	-0.2638***	-3.8998***	-5.7203	0.0502***	1.2810***	0.7555	0.0074	3.1190***	2.9368
ESC	-0.1942***	-3.2555***	-4.5440	-0.0011	1.3780***	0.4942	-0.0198	2.7932***	2.4022
WSC	-0.2875***	-4.4760***	-6.2058	0.0795***	0.9335**	0.7759	0.0073	2.6990***	2.5487
Mount	-0.3255***	-5.9937***	-7.3281	-0.0208	1.3675***	0.3708	0.0730***	7.5400***	7.7759
Pac	-0.3733***	-3.3798***	-6.6708	-0.0341*	1.1378***	0.2180	0.0652***	5.0767***	5.2989
Charity	0.1150***	1.0177***	2.257						
Church				0.1208***	-0.2017	0.4648			
Patriotic				0.0198	-1.8356	-0.4618			
War Bonds							0.0380***	1.003***	1.398

Probit marginal effects (ME prob) from STATA margins (dy/dx) command. For dummies, the discrete change from 0 to 1.
 Amount and total marginal effects reverse transformed (from natural log to $) by including a function of variance of errors in predicted

values. Specifically, $E(C|x) = e^{x\beta + \frac{\sigma^2}{2}}$

Table 6:

Income Elasticities for a Representative Household

	Probability*	Amount	Unconditional
Church & Religious	0.241	0.720	1.036
Charity	0.774	1.112	1.925
Patriotic	0.106	1.268	1.465

* Calculated for a representative household with white head living in WNC region, age 36, 2 children, non-owner, with family earnings = $1492, who gives to church and patriotic organizations, and invests in war bonds.

* Amount elasticities calculated as the average predicted effect from a 10% increase in family earnings.

Table 7:

Regional Religious Adherence, 1980-2020

	New England			South		
	Share of total population	% Mainline	Region's share Mainline	Share of total population	% Evangelical	Region's share Evangelical
1980	21.8	13.0	21.7	32.5	24.0	74.0
2000	19.0	9.3	19.4	35.4	21.8	73.4
2020	17.4	4.4	18.2	37.9	13.6	75.5

Source: Churches and Church Membership in the United States, 1980, 2000, and 2020. www.ARDA.com

Graph 1:
Predicted Probability of any Church Giving, by Region 1918-19
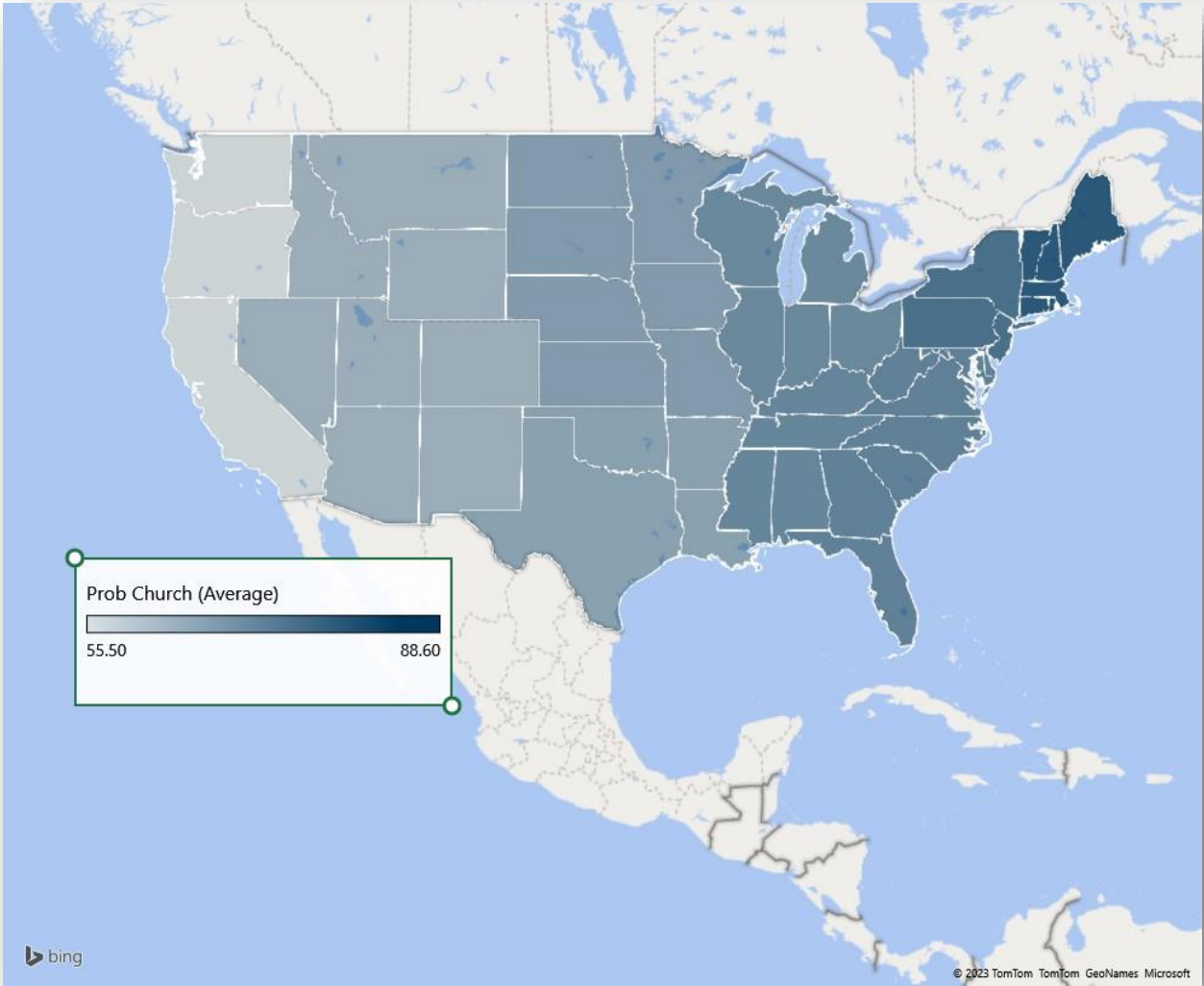Holding Household Characteristics at Means

Table 2:
Church Adherence by Region, 1990 (Gaustad and Barlow, 2001)

CHURCH MEMBERSHIP AS A PERCENTAGE OF TOTAL POPULATION: 1990

PERCENTAGE
Below 42
43 to 54
55 to 65
66 to 76
Over 76

Figure 4.17