Would Jesus Own A Cat? (Probably Not):
How Religion Predicts Pet Ownership in the United States

Abstract

Over 60 percent of American adults have some sort of family pet. Though studies have explored the personality and demographic correlates of pet ownership, none have considered whether religious characteristics may influence not only pet ownership in general, but the *kind* of pet Americans own. Drawing on data from the 2018 General Social Survey, we examine the religious antecedents of pet ownership in general as well as owning particular pets, taking into account various sociodemographic and ideological factors previously associated with owning particular pets (e.g., urban vs. rural residence, political affiliation). While religious tradition and biblical literalism generally do not predict pet ownership, frequent worship attendees and the most conservative evangelicals report owning fewer pets. Religious characteristics also predict Americans' ownership of particular pets. Most notably, we find a strong, negative association between worship attendance and cat ownership. Following previous research, we conceive of pet ownership as a partial substitute for human interaction. Thus, the more embedded Americans are within a religious community, the less need (or time) they have for pets. Regarding cats in particular, it may be that the more human interaction one has in a religious community corresponds to less need for a cat—arguably the most independent, human-like pet.

Keywords: church attendance; pets; pet ownership; cats; dogs

INTRODUCTION

While owning a house pet is a common practice around the world, the United States stands alone in terms of pet ownership as an institution. The dog population in the United States, for example, is nearly 70 million, roughly 2.5 times larger than the closest competitor, China. The US also dwarfs other nations in cat ownership and fish ownership (American Veterinary Medical Association 2012; Pet Secure 2019). In terms of pet owners themselves, the 2018 General Social Survey shows the vast majority of Americans (60.9% or roughly 153 million adults) own at least one family pet and the average adult owns 1.7 pets. Yet not only is pet ownership popular in the United States, it is consequential. In 2018, for example, Americans spent over 72 billion dollars on their pets, more than they spent on *all* sporting events combined (American Pet Products Association 2018; Kutz 2017). And numerous studies have documented how pet ownership contributes to positive outcomes in mental health and companionship, and potentially even improved physical health (Friedmann and Thomas 1985; Jennings 1997; Wells 2009).

Despite the ubiquity of pet ownership in the US, as well as its economic and social importance, very few studies have considered how religion—an equally ubiquitous and institutionalized facet of American life—may shape the practice of pet ownership. This neglect is also curious, given that pet ownership often corresponds to particular regions (rural) and populations (politically conservative) for whom religion is expected to matter a great deal. Addressing this gap, the current research note draws on representative data from the 2018 General Social Survey, which contained a unique module on pet ownership, to examine how religious characteristics predict the number and type of pets Americans own. In the following section, we briefly survey previous research on pet ownership in order to develop expectations for the sort of role religion may play and the potential mechanisms linking the two.

BACKGROUND

Previous research leads us to conceive of pet ownership in general, and particular types of pets more than others, as partial substitutes for human interaction. Dating back to the 1960s, studies found that, compared with non-owners, pet owners were more likely to indicate they did not like people much or feel liked by others (Cameron, et al. 1966; Cameron and Mattson 1972). Other studies, however, found that pets were not necessarily a sign of anti-social inclinations or personalities, but could be psychologically beneficial to those more objectively alone for longer periods, like the elderly (Garrity et al. 1989; Kidd and Feldmann 1981; Pikhartova et al. 2014), rural children (Blue 1986; Triebenbacher 1998), or single women (Pikhartova et al. 2014; Zasloff and Kidd 1994). Some scholars find that companion animals can reduce anxiety and depression or even increase self-esteem in adults and children (Folse et al. 1994; Triebenbacher 1998). These observed psychological benefits of pet ownership provide insight into the mechanisms that likely influence Americans to pursue either a larger number, or a certain type, of pets. Archer (1997) adopts an evolutionary perspective to propose that the tendency for humans to "love" and "attach" to their pets stems from a natural human tendency to attach to their own child. Specifically, people can attribute human-like emotions and perceptions of their interaction (e.g., "my dog is jealous of you," or "my cat is giving me the silent treatment today"). Indeed, Archer contends that these pet/human interactions can be more satisfying than interactions with actual humans, since social anxiety may be removed and relationships are less complicated.

How might pet ownership in general be connected to religion? The issue is only rarely and obliquely touched on in the pet ownership literature. Cameron and Mattson's (1972) study of Americans across regional units reported that pet owners tended to find religion of less value than non-owners. This is entirely predictable, given our conception of pet ownership as a partial

substitute for human interaction. Though not writing about religion specifically, Martinez and Kidd (1980:318) argue, "The animal/human bond fills the needs for companion, friend, servant, scapegoat, team-mate, confidant, defender, and, [in institutionally-connected adults] these needs may already be satisfied by human/human bonds. Pet ownership would be less beneficial than it is to other groups and, in some cases, a liability, subtracting time and energy from human interactions." Building on this idea, because "religion is an eminently social thing," that embeds one within a "moral community called a church" (Durkheim 1995 [1912]), we would predict that Americans' connection to institutional religion as indicated through religious service attendance would be negatively associated with the number of pets Americans own.

To our knowledge, no studies have explored how religious tradition and theological conservatism are associated with general pet ownership. Data from the American Veterinary Medical Association (2018) shows that pet ownership tends to be higher in rural areas and Republican-dominated states vs. urban areas or solidly-Democratic states. Because religious conservatism overlaps so strongly with rural/urban as well as Republican/Democratic dichotomies, it is reasonable to expect that evangelicalism and theological conservatism would be associated with a higher likelihood of pet ownership, despite the expected negative association between religious service attendance and pet ownership.

Might some pets be more closely connected with religious characteristics than others? This would be expected because some animals encourage more pro-social behavior than others. For instance, research suggests that owning a dog provides occasion for owners to get out of the house on walks or go to dog parks where they may interact with other owners (McNicholas and Collis 2000; Wells 2004; 2009). Dogs are also more likely to be owned by larger families with children (Murray et al. 2010), which is also associated with religious participation. To be sure,

these links are largely explained by self-selection. Studies of personalities across dog and cat owners show that dog-owners tend to be higher on extraversion and agreeableness, which is why they were attracted to dogs in the first place (Gossling et al. 2010). Cats, on the other hand, are notoriously independent and their ownership is associated with greater social isolation (Hanauer et al. 2013). Moreover, in studies of personalities, cat owners scored lower than non-pet-owners and dog-owners on extraversion, agreeableness, conscientiousness, and higher on neuroticism, suggesting cat owners may be more introverted and comfortable alone (Gossling et al. 2010). While no studies have explored how religious commitment may be associated with pet ownership, we anticipate that institutional religious participation in the form of worship attendance would be positively correlated with all pets except cats. In contrast, we expect cat ownership would be associated with lower levels of religious service attendance.

Theorizing the potential influence of religious conservatism, analyses have shown that cat owners tend to reside in urban settings as well as regions dominated by the Democratic party. This might also be expected among owners of birds, fish, and small mammals, since these pets are smaller and thus more ideal for urban life. Dog owners, in contrast, are more likely to live in rural areas and reside in Republican-dominated states (American Veterinary Medical Association 2018; Blake 2014; Murray et al. 2010).[1] Following the reasoning stated earlier that rural/Republican areas are strongly characterized by conservative Christianity, we would predict that Americans connected to conservative Protestantism by affiliation or belief would be less likely to own cats, fish, birds, and small mammals, and more likely to own dogs.

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[1] While this would also likely be the case among owners of horses, pigs, and goats, which are asked about in the 2018 General Social Survey, the owners of these animals are so few that we could not run meaningful regression analyses predicting their ownership.

Other studies focusing more explicitly on religion lend support to this expectation for different reasons. Researchers find that conservative or fundamentalist Christianity, because it maintains a discontinuity between humans and animals based on literalist readings of Genesis 1 and 2, is associated with higher tolerance toward animal cruelty and skepticism toward animal rights (Bowd and Bowd 1989; DeLeeuw et al. 2007; Driscoll 1992). Other data sources indicate Protestants are less likely than Catholics or people of "Other" religious faiths or no religious faith to favor laws protecting the use of animals for fur, scientific experiments, or meat products (Hunter and Bowman 1990), which also suggests a potential connection between theological conservatism and instrumental views of animals. Based on this idea, we would expect that Christian conservatism—as indicated by evangelical affiliation and more literalist interpretations of the Bible—would predict the ownership of family pets that have practical utility such as dogs and not other pets like cats, birds, fish, or small mammals.

DATA/METHODS

Data. The General Social Survey has been conducted on at least a biannual basis since its inception in 1972. The 2018 wave of the GSS consisted of a total of 2,348 respondents who answered a wide variety of core demographic and religion questions with subsamples being included in specific batteries related to a number of distinct areas.

Measures. Outcome variables include measures about the number and type of pets Americans own. The 2018 GSS had an ownership module that asked respondents, "How many pets does your family have?" Answers ranged from 0 to 20 or more total pets. This question was answered by exactly half the sample, with the mean number of pets being 1.72. We predict this numerical outcome with negative binomial regression models.

The GSS also asked if respondents owned: a dog, cat, horse, pig, goat, fish, bird, reptile, and small mammal.[2] Each question had the response options: has = 1, does not have = 0. These questions were only posed to 699 respondents, representing 29.7% of the total 2018 GSS sample. Of these respondents, 74.9% own dogs, 40.3% own cats, 5.9% own fish, 5.8% own birds, and 5.3% own small mammals. Here we use binary logistic regression to estimate our models.

Religion measures included religious service attendance, views of the Bible, and religious tradition. Religious service attendance was measured as a continuous variable from 1 = never to 8 = more than once a week. Beliefs about the Bible were dichotomized into 1 = the Bible is the actual word of God and is to be taken literally word for word and 0 = some other view. The religious tradition variable is based on a modified version of the RELTRAD classification scheme first proposed by Steensland et al. (2000) with the coding published by Burge and Stetzer (2016) employed to operationalize the categories. Evangelicals are the reference category.

The analyses also include controls theorized to predict pet ownership: age, income, years of education, male, and number of kids, Republican party identification, and urban residence. Table 1 presents descriptive statistics for all variables included in models.

<div align="center">INSERT TABLE 1 ABOUT HERE</div>

FINDINGS

To begin we specified a negative binomial regression to predict the number of pets owned based on a number of demographic and religious factors.[3] Figure 1 visualizes the estimates for each variable along with the confidence intervals specified by horizontal lines, with zero being indicated by a dashed vertical line. The interpretation of the plot is straightforward: if

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[2] We concluded that the number of respondents who owned reptiles, horses, pigs, or goats was too small for any meaningful analyses and thus we focused on ownership of dogs, cats, fish, birds, or small mammals.
[3] Full variable coding is available in the online appendix.

the dot or the horizontal lines intersect with zero, then that variable is not statistically significant. If the points and confidence intervals are to the right of zero that indicates owning a higher number of pets, with left of zero indicating a lower number of pets. To aid in interpretation, each variable was scaled from zero to one so that each estimate is for the full range of that variable.[4]

A number of variables are statistically significant in this analysis. The control variables that predict a greater number of pets include household income, having a Republican party identification, as well as being white. Two other control variables: age and education predict owning fewer pets, however. It is noteworthy that income and education, two variables that often positively correlated, have opposite effects on owning pets. It may be that many individuals with lower levels of education and higher levels of income work in agriculture or possibly construction, two industries that afford a great deal of space and freedom to have pets. However, it is not possible to test this with the current data. It is also notable that gender is not statistically significant, nor is living in an urban area.

<div align="center">INSERT FIGURE 1 ABOUT HERE</div>

Turning now to our religion variables, none of the religious traditions in the RELTRAD scheme were significantly different from the reference category of evangelical Protestants. In addition, the dichotomous variable for believing in a literal Bible is also not statistically significant. These findings provide no support for the idea that theological conservatism—as indicated by religious tradition or belief—shape Americans' likelihood of owning fewer or more pets. However, consistent with our stated expectation, worship attendance is statistically significant and signed in the negative direction, meaning that holding all the other variables constant the more frequently one attends religious services, the fewer number of pets they own.

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[4] A regression table for this, and all subsequent analysis, is available in the appendix.

Figure 2 illustrates this association by graphing the predicted probabilities of the number of pets owned across frequencies of religious service attendance, while incorporating all the controls from the previous model. Although the confidence intervals are wide, the relationship as previously noted is statistically significant. To put these numbers into perspective, the estimated total number of pets owned for someone who never attends church services is 1.96, but that number then declines to 1.38 for an individual who attends church multiple times per week.

INSERT FIGURE 2 ABOUT HERE

While religious tradition had been included in the previous two models as a control variable, it is instructive to estimate three separate negative binomial regression models that include only respondents from the three largest faith traditions in the United States: evangelicals, mainline Protestants, and Catholics (see Figure 3). The results complicate our previous findings presented in Figure 1. In terms of controls, neither the number of children, gender, party identification or urban status significantly predict pet ownership for any of the three religious traditions. However, there are some demographic variables that work in different ways. For instance, white evangelicals and Catholics own a larger number of pets, however the same cannot be said for white mainline Protestants. Also, older mainline Protestants and Catholics own fewer pets, but there is no relationship between age and number of pets for evangelicals. Education also works in an inconsistent way, with more educated Catholics owning fewer pets but there is no relationship between education and pet ownership for the two Protestant groups. Finally, higher levels of income lead to significantly more pets owned for mainline Protestants but income has no bearing on the number of pets for evangelicals or Catholics.

The religion variables, biblical literalism and church attendance are also interesting. It is especially noteworthy that church attendance, despite being significant in the full sample, does

not reach statistically significant levels for any of the three religious traditions in this regression model. This speaks to the heavily contextualized relationship that exists between church attendance and religious tradition on the number of pets. Biblical literalism, however is statistically significant for two of three religious groups: evangelicals and mainline Protestants, but does not reach significance for Catholics. What is maybe more interesting is that biblical literalism works in opposite directions for the two Protestants groups. For evangelicals, a biblical literalist owns .47 fewer pets than a non-literalist evangelical, ceteris paribus. A literalist mainline Protestant, however, owns .61 more pets than the same mainline Protestant with a different view of the Bible.

<div align="center">INSERT FIGURE 3 HERE</div>

Now we turn to consider how religion shapes which type of pets Americans are more likely to own. Figure 4 contains the results of a logistic regression analysis with the same variables included in the models from Figures 1 and 2. Five different animals serve as the dependent outcome variable in each of the models: dog, cat, small mammal, bird, and fish.[5]

For many of the variables in this analysis they work in the same way for each of the five types pets. For instance, the dichotomous race variable is not statistically significant for any of the five dependent variables, with the same pattern existed for income. Men are more likely to own a bird, but less likely to own a dog than women. While those with Republican party identification are more likely to own a small mammal. Education drives down ownership of dogs, fish, and birds, but has no effect on owning a cat or a small mammal. Those who live in urban areas are, predictably, more likely to own a bird, but less likely to have a dog as a pet.

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[5] Note that x-axis was truncated purposefully to remove some of the estimates that had extremely large confidence intervals because of very small sample sizes. In no case were statistically significant estimates not visualized in this figure.

Most of the religion measures tapping theological affiliation or belief are also statistically insignificant, as well. For instance, biblical literalism is not a statistically significant predictor of owning any of the five animals. There are some notable exceptions among the religion variables, though. Those of "other faith" and mainline Protestants are less likely to own a dog than evangelicals, while Catholics are less likely to own a cat than evangelicals. However, to return to church attendance, in only one case does the variable have a statistically significant relationship and that is on cat ownership. According to the results of this model, those who attend church more are less likely to be cat owners, controlling for all the other factors in the model. This is consistent with our previous expectation.

INSERT FIGURE 4 HERE

DISCUSSION

Despite the ubiquity of pets in the United States and the considerable role they play in the emotional, relational, and even financial lives of many Americans, researchers have yet to consider how religious factors shape Americans' likelihood of owning pets, and, just as important, which pets. Using data from the 2018 GSS module on pet ownership, we have shown that Americans who attend religious services more often are less likely to own pets, and in particular, they are less likely to own cats. By contrast, when we predicted pet ownership across religious tradition, though we did not find substantial differences in the type of pets being owned, evangelical Protestants who were more theologically conservative were less likely to own pets than evangelicals who hold a more progressive view of the Bible; and for mainline Protestants, we found just the opposite association with theological conservatism.

How do we interpret these trends? In light of the finding that biblical literalism and religious affiliation were not significant predictors of owning more pets in the full sample, the

negative association between worship attendance and the number of pets Americans own likely reflects a *social* mechanism at work. Specifically, persons who attend religious services quite frequently are more socially connected, with additional expectations on their time and relational capacities. It is likely that Americans who attend church more often either do not have the need or the time for more pets (Martinez and Kidd 1980).

Why were literalist evangelicals predicted to own fewer pets than other evangelicals, all else being equal? This may be indicative of some theological differences shaping pet ownership. The most fundamentalist evangelicals, prone to view creatures as inferior to humans and with a more utilitarian lens (Bowd and Bowd 1989; DeLeeuw et al. 2007; Driscoll 1992), may simply have less need for pets compared to evangelicals who adopt a less literalistic view of the Bible and thus view pets closer to the way the majority of Americans do, namely, as close companions and even members of the family. In contrast to evangelicals, more literalist mainline Protestants may interpret their Bible as championing stewardship (not subjection) of creation, inclining them to value animals *more* than non-literalist mainliners.

We also found that religious factors were not particularly substantial predictors of which type of pet Americans own, with the exception of cats. Why were frequent churchgoers less likely to own cats in particular? In contrast to dogs, who tend to be extremely social and owned by humans who are more socially-connected (Murray et al. 2010; Wells 2009), cat owners are more likely to be socially isolated, and even anti-social by some measures (Gossling et al. 2010; Hanauer et al. 2013). In other words, the type of Americans attracted to cats might also be the same Americans who find social situations in church unappealing. But cat owners may also find in cats, among all pets, what is the most acceptable "substitute" for human interaction. While dogs require regular interaction and maintenance—and even other household pets like small

mammals or birds require some form of daily maintenance—cats are arguably the most independent and willful of pets. Consequently, whereas living with most pets may not fulfill one's need for human interaction, living with a cat may be the closest experience to living with a human roommate, who comes and goes as it pleases, and thus, may be a closer (albeit partial) substitute for those who would otherwise participate in social functions like church.

We acknowledge several data limitations here. While the causal ordering theorized here (religious factors influencing pet ownership) seems more plausible than the alternative (e.g., pets causing a decline in their owners worship attendance), the data are cross-sectional and thus directionality cannot be definitively determined. Related to this, while we have included a number of controls theorized to predict pet ownership in previous studies, we are unable to account for various personality characteristics that might confound the associations we observed here, such as extroversion, agreeableness, and neuroticism. Lastly, while our theoretical explanation linking religious characteristics like worship attendance to pet ownership builds on previous literature, our data measures are too limited to isolate the precise mechanisms at work connecting the two. Future research would ideally incorporate a more exhaustive battery of controls with a large enough sample to provide more comprehensive explanations.

These limitations notwithstanding, this research note extends our understanding of how two pervasive and enormously consequential American institutions—religion and pet ownership—intersect. Given our findings, it is helpful to consider how these associations may change in the future. As religious participation declines in the United States, it is possible that pet ownership (and perhaps cat ownership in particular) would rise as Americans seek partial substitutes for the human interaction they might have otherwise had in church. Future research, perhaps with future GSS waves, should thus look to track these associations over time.

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Table 1: Descriptive Statistics

Variables	Mean or %	Min	Max
Outcomes			
Mean Number of Pets	1.72	0	20
% Animal Ownership			
Cat	40.3%		
Dog	74.9%		
Bird	5.8%		
Fish	5.9%		
Small Mammal	5.3%		
Predictors			
Age	49.00	18	89
Income	10.95	1	12
Republican ID	2.74	0	6
Education	13.73	0	20
Number of Children	1.86	0	8
Church Attendance	3.12	0	8
Male	44.8%		
White	72.1%		
Literalism	30.1%		
Urban	8.3%		

Source: 2018 General Social Survey
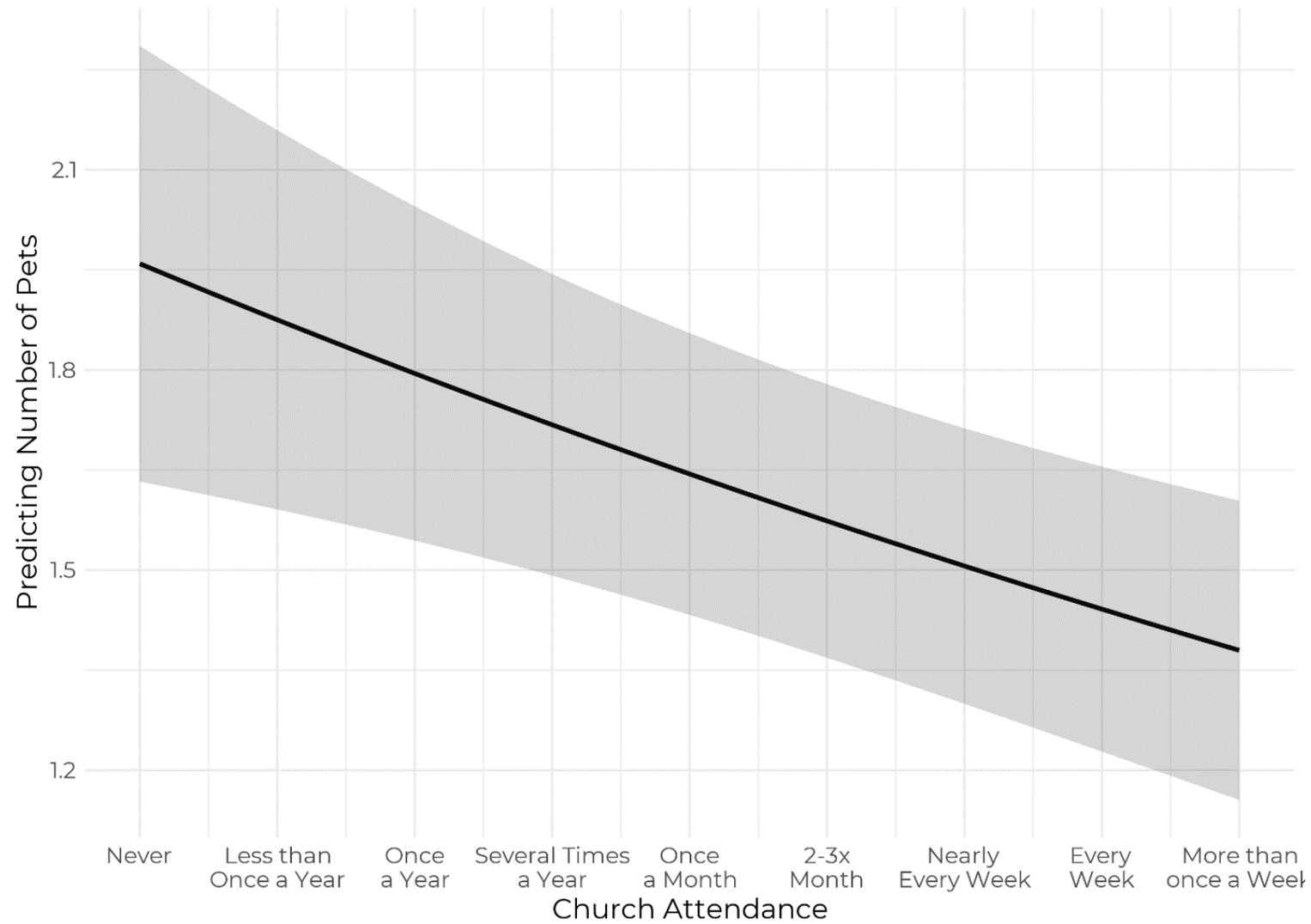
FIGURE 1

Predicting Number of Pets
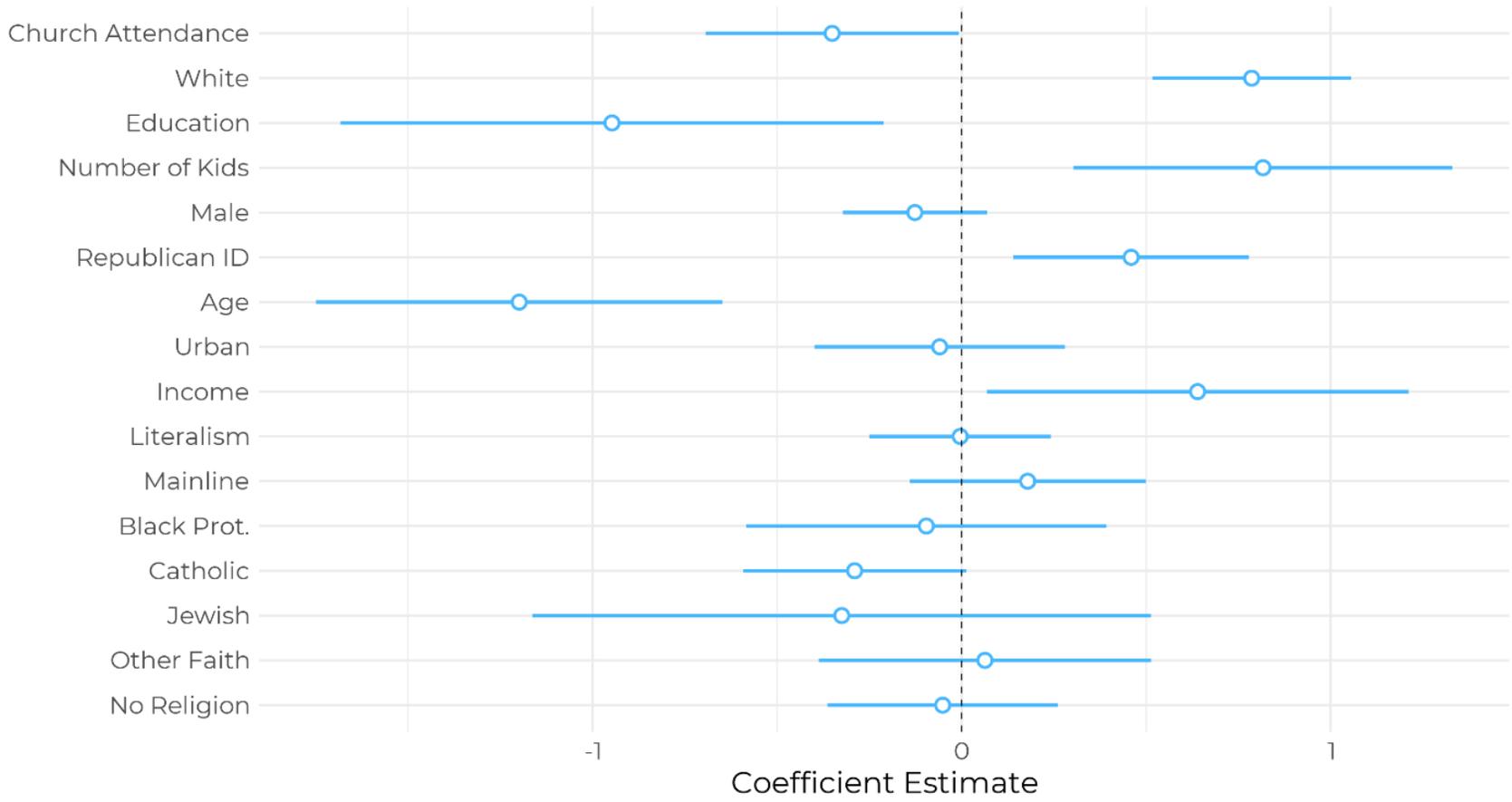
Data: GSS 2018

FIGURE 2
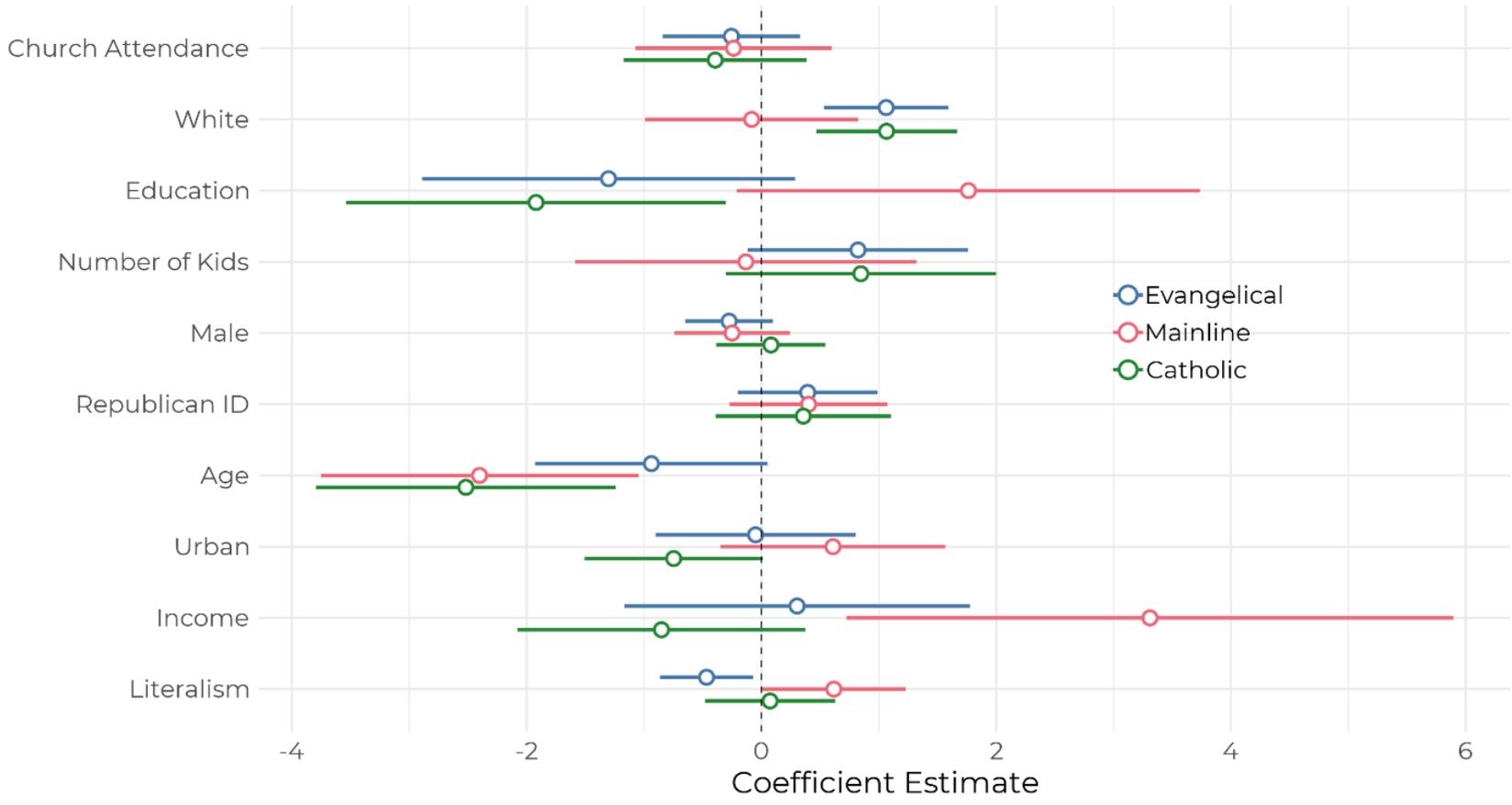

The Interaction Between Church Attendance and Number of Pets
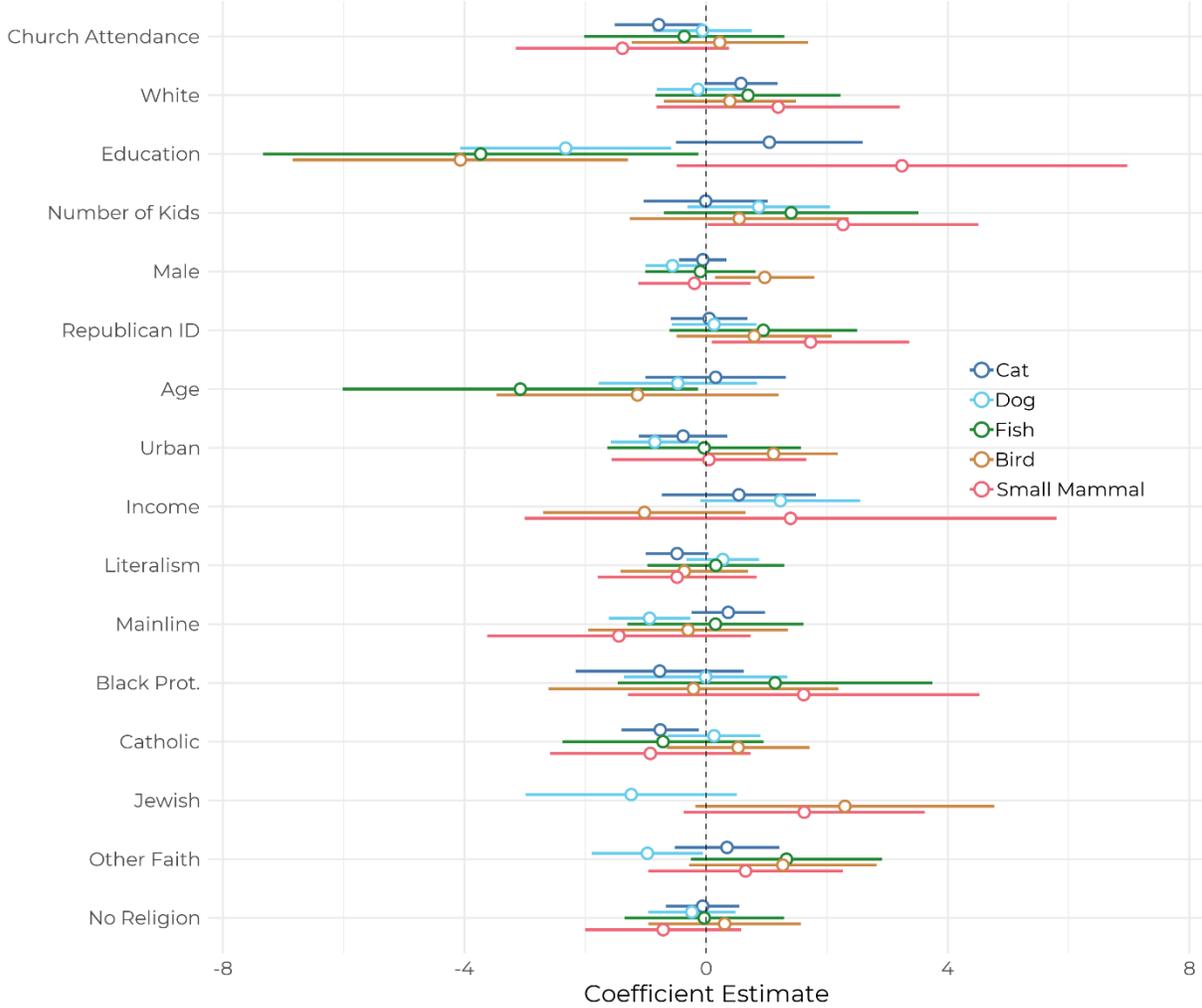
Data: GSS 2018

FIGURE 3

Predicting Number of Pets

FIGURE 4

Predicting Having Each Pet

Data: GSS 2018

ONLINE APPENDIX MATERIAL

Figure 1 + 2 Regression Model

	Dependent variable:
	Predicting Number of Pets
Church Attendance	-0.044*
	(0.022)
White	0.786*
	(0.137)
Male	-0.127
	(0.100)
Income	0.640*
	(0.291)
Republican ID	0.460*
	(0.163)
Number of Kids	0.817*
	(0.262)
Age	-1.199*
	(0.281)
Education	-0.947*
	(0.376)
Urban	-0.059
	(0.173)
Literalism	-0.004
	(0.125)
Mainline	0.179
	(0.163)
Black Prot.	-0.096
	(0.249)
Catholic	-0.290
	(0.154)
Jewish	-0.325
	(0.428)
Other Faith	0.063
	(0.230)
No Religion	-0.051
	(0.159)
Constant	0.434
	(0.383)
Observations	845
Log Likelihood	-1,436.245
theta	0.778* (0.065)
Akaike Inf. Crit.	2,906.490
Note:	*p**p***p<[0.***]

Figure 3 Regression Model

	Dependent variable:		
	Predicting Number of Pets		
	Evangelical	Mainline	Catholic
	(1)	(2)	(3)
Church Attendance	-0.503	-0.222	-0.795
	(0.301)	(0.418)	(0.410)
White	-0.330	-0.252	0.074
	(0.197)	(0.248)	(0.245)
Male	0.412	3.295*	-0.590
	(0.775)	(1.321)	(0.651)
Income	0.759*	0.400	0.471
	(0.297)	(0.332)	(0.395)
Republican ID	0.446	-0.138	0.714
	(0.497)	(0.741)	(0.597)
Number of Kids	-0.657	-2.404*	-2.135*
	(0.516)	(0.688)	(0.648)
Age	-1.393	1.790	-1.424
	(0.828)	(1.006)	(0.823)
Education	-0.229	0.607	-0.668
	(0.441)	(0.489)	(0.392)
Urban	-0.430*	0.631*	0.100
	(0.207)	(0.311)	(0.287)
Literalism	1.577*	-2.613	2.816*
	(0.740)	(1.490)	(0.772)
Observations	215	112	168
Log Likelihood	-393.950	-196.466	-254.132
theta	0.840* (0.133)	1.104* (0.253)	0.725* (0.147)
Akaike Inf. Crit.	807.899	412.931	528.264

Note: *p**p***p<[0.***]

Figure 3 Regression Model

	Dependent variable:				
	Cat	Dog	Fish	Bird	Small Mammal
	(1)	(2)	(3)	(4)	(5)
Church Attendance	-0.786*	-0.061	-0.362	0.226	-1.385
	(0.371)	(0.417)	(0.845)	(0.744)	(0.901)
White	0.577	-0.136	0.693	0.393	1.193
	(0.309)	(0.347)	(0.782)	(0.558)	(1.027)
Male	-0.055	-0.558*	-0.095	0.971*	-0.193
	(0.201)	(0.228)	(0.466)	(0.420)	(0.474)
Income	0.542	1.229	6.758	-1.020	1.398
	(0.651)	(0.675)	(3.767)	(0.855)	(2.246)
Republican ID	0.051	0.132	0.947	0.796	1.730*
	(0.324)	(0.358)	(0.793)	(0.656)	(0.834)
Number of Kids	-0.008	0.872	1.408	0.548	2.266*
	(0.525)	(0.603)	(1.075)	(0.924)	(1.144)
Age	0.157	-0.469	-3.075*	-1.135	-5.863*
	(0.594)	(0.669)	(1.501)	(1.192)	(1.846)
Education	1.047	-2.325*	-3.732*	-4.068*	3.242
	(0.788)	(0.891)	(1.839)	(1.415)	(1.904)
Urban	-0.381	-0.849*	-0.032	1.116*	0.046
	(0.374)	(0.372)	(0.817)	(0.543)	(0.823)
Literalism	-0.481	0.277	0.160	-0.361	-0.481
	(0.265)	(0.306)	(0.578)	(0.539)	(0.671)
Mainline	0.367	-0.936*	0.154	-0.299	-1.444
	(0.311)	(0.345)	(0.743)	(0.843)	(1.113)
Black Prot.	-0.768	-0.008	1.143	-0.209	1.616
	(0.709)	(0.689)	(1.329)	(1.224)	(1.485)
Catholic	-0.760*	0.131	-0.714	0.530	-0.924
	(0.327)	(0.392)	(0.849)	(0.602)	(0.847)
Jewish	-15.765	-1.240	-13.403	2.297	1.624
	(575.951)	(0.893)	(918.449)	(1.262)	(1.019)
Other Faith	0.346	-0.972*	1.330	1.270	0.653
	(0.442)	(0.470)	(0.807)	(0.791)	(0.820)
No Religion	-0.058	-0.237	-0.031	0.307	-0.711
	(0.310)	(0.370)	(0.674)	(0.643)	(0.659)
Constant	-1.607	2.289*	-6.833	-0.343	-5.400*
	(0.857)	(0.939)	(3.857)	(1.409)	(2.641)
Observations	491	491	491	491	491
Log Likelihood	-303.809	-252.940	-84.265	-104.379	-78.179
Akaike Inf. Crit.	641.618	539.880	202.529	242.758	190.357

Note: *p**p***p<[0.***]