Context Matters: Proportion Fundamentalist Effects on Gender Attitudes*

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ABSTRACT

Previous research has shown that fundamentalist religious beliefs and affiliations are associated with more conservative gender attitudes. This study expands upon previous research by examining both the individual and contextual effects of conservative Protestantism on gender attitudes. Multi-level analysis of data from the General Social Surveys (1985-1996) reveals a significant relationship between the proportion of fundamentalists in a state and more conservative gender attitudes of white individuals within that state even after controlling for the individuals' own religious affiliation, beliefs and practices.

INTRODUCTION

Contextual effects are at the heart of the sociological enterprise. Emile Durkheim (1952:320) identified the existence of a contextual effect when he argued, "...the group formed by associated individuals has a reality of a different sort from each individual considered singly... collective states exist in the group from whose nature they spring." More recently, Huckfeldt (1986:13) defined contextual effects as "instances in which individual behavior is affected by the presence of a social property in a population regardless of whether the individual possesses the property in question." While the importance of context in examining gender equality has long been recognized, there have been no previous studies that have examined contextual effects, beyond region, on gender attitudes across the United States.

Substantial research has shown that for individuals, fundamentalist Protestants have more conservative attitudes regarding gender roles (Brinkerhoff & MacKie 1984; Gay, Ellison, and Powers 1996; Hertel and Hughes 1987; Hoffmann and Miller 1997). However, the effects of religion on gender attitudes may extend beyond the boundaries of the individuals who are themselves fundamentalist Protestants. After summarizing the social science literature addressing the relationship between fundamentalism and gender attitudes, we utilize 1985 - 1996 General Social Survey (GSS) data to test the hypothesis that white individuals' conservative gender attitudes are related not only to their own individual characteristics but also to the proportion of fundamentalists in the state where they live. We find evidence to support this contextual hypothesis and conclude by discussing issues regarding causation and future avenues for research.

INDIVIDUAL- LEVEL FUNDAMENTALISM AND GENDER ATTITUDES

Fundamentalist denominations originated largely out of nineteenth century Holiness and Pentecostal movements (Ammerman 1987; Woodberry and Smith 1998). Fundamentalists tend to oppose the growth of secular influence in society (Hawley and Proudfoot 1994). They also tend to believe in the inerrancy of the Bible, personal salvation, the premillenial imminent return of Christ, and an evangelical need to convert others (Ammerman 1987; Woodberry and Smith 1998). Fundamentalist Protestants endorse traditional gender role attitudes in adherence to Biblical scriptures that portray men as leaders but women as followers (Ammerman 1987; Bendroth 1993). The traditional hierarchy taught by Fundamentalist churches is from God to man and from man to woman, with women's roles defined as that of helpmate and mother (Kosmin and Lachman 1993). Accordingly, fundamentalists tend to oppose modern, modified gender roles whereby women have entered the paid workforce, sought more egalitarian divisions of household labor and asserted themselves more openly in marital decision-making processes (Brown 1994; Kosmin and Lachman 1993).

Even the earliest studies of gender attitudes noted the association of religious denominations and beliefs and their corresponding conservative gender attitudes (Mason and Bumpass 1975). Utilizing 1972 - 1984 GSS data, Hertel and Hughes (1987) found white Protestant fundamentalists to retain the most conservative attitudes regarding women's home, work and political roles. Baptists, Catholics, Methodists, Lutherans, Presbyterians, Episcopalians, Jews, and those reporting no religious affiliation showed progressively more liberal gender attitudes. The conservative fundamentalist effect remained strong after controlling for age, income, education and region. Hoffmann and Miller (1997) report from their across time analysis of 1972 - 1994 GSS data that while Conservative Protestant (Southern Baptists,

Evangelicals, Fundamentalist, Nazarenes, Pentecostals, Church of Christ) support for egalitarian gender roles has increased, this group is still among the most conservative. Utilizing 1982-1991 GSS data, Gay, Ellison, and Powers (1996) find that white Southern Baptists and other fundamentalist and evangelical members report the most conservative gender role attitudes on "pro-family" issues such as gender roles, abortion, and sexuality. Again, these effects remain after controlling for an array of individual-level variables. However, Gay, Ellison, and Powers (1996) document some internal heterogeneity on gender role attitudes within conservative Protestant denominations forcing researchers to reexamine assumptions of a "monolithic" fundamentalist/evangelical group. They suggest that issues of female employment and household decision making are "more nuanced and negotiated than previously recognized (Gay, Ellison, and Powers 1996:13)." The strong relationship between fundamentalism and conservative gender attitudes has also been documented by studies utilizing more specific, non-representative samples (Brinkerhoff & Mackie 1984: Martin, Osmond, Hesselbart and Wood 1980; Thornton, Alwin, and Camburn 1983; Thornton and Freedman 1979; Wilcox 1986), and by studies measuring fundamentalism as individual beliefs (Brinkerhoff & MacKie 1984: Wilcox 1986).

CONTEXTUAL LEVEL ANALYSES OF GENDER ATTITUDES

In research utilizing U.S. data, region has been the primary contextual level variable used in analyses of gender attitudes. Several studies have found that conservative gender attitudes are concentrated in the South (Burris 1983; Hurlbert 1989; Mason, Czajka and Arber 1976; Rice and Coates 1995). Hurlbert (1989) found white Southerners to be significantly more conservative on women's issues even after controlling for individuals' religion, rural/urban residence, income, education, prestige, age, sex, union membership and year of survey. More recently, Rice and

Coates (1995) found a similar Southern difference with updated GSS data (1972-1993) and a broader sample that included blacks and whites.

Because these studies control for a comprehensive set of individual variables, the results support a *subcultural* hypothesis versus a simple *compositional* hypothesis (Johnson and Stokes 1984). The compositional hypothesis would explain the more conservative gender attitudes found in regions like the U.S. South as merely a consequence of there being more individuals in the South possessing traits associated with conservative gender attitudes - such as lower education levels, rural residence, and fundamentalist religious affiliations. In contrast, the subcultural hypothesis claims that the regional effect is above and beyond the summation of individual traits; that is, it is a contextual effect. However to date, no studies have gone beyond identifying the Southern difference and noting its cause as due to a unique regional subculture. What is it about the South that makes people hold more conservative gender attitudes?

We believe that the South-nonSouth difference found in earlier studies is primarily a contextual effect resulting from the higher religious fundamentalism in the South. Although the South is becoming increasingly indistinguishable from the rest of the country on structural measures such as urbanization, industrialization, occupational distribution, income and education, its disproportionate population of fundamentalists remains a distinctive Southern marker (Goldschmidt 1963; Kasarda, Hughes, and Irwin 1991; McKinney & Bourque 1971; Mayo 1964; Reisman 1965). Kosmin and Lachman (1993:52) note that the Southern "Bible Belt" is comprised primarily of Baptists - many of them fundamentalist Southern Baptists that "form a formidable cultural force in shaping the outlook of the populace and social institutions of the region." Fundamentalist Protestants comprise over 40% of the census South compared to approximately 19% in the nonSouth (Kosmin and Lachman 1993). We contend that the

"formidable cultural force" of Bible Belt fundamentalists represents a contextual effect on gender attitudes that goes well beyond the compositional effects explained by different characteristics of individual Southerners.

Only one study has investigated a contextual effect of religion on gender attitudes and that study used European data. Banaszak and Plutzer (1993) measure four distinct aspects of European social context: 1) religiosity levels; 2) divorce levels; 3) women's education relative to men; and 4) women's economic participation relative to men. After controlling for individual-level effects (country, education, marital status, number of children, female work status, age, Left party support, family income, size of community, and religiosity), they found contextual-level effects for educational levels among both men and women and contextual-level effects for women's labor force rates and divorce rates for women. They did not find any support for the contextual effects of religiosity for either women or men beyond the individual-level effects they controlled. However, Europe may lack sufficient variance on religion to produce a significant contextual effect. In contrast, the United States has continued to display higher levels of church affiliation and religiosity than most other industrialized nations (Kosmin and Lachman 1993; Sherkat and Ellison 1999). We believe that American data may reveal stronger contextual effects than European data.

CONTEXTUAL THEORY

Our goal is to explore an empirical relationship between the proportion of fundamentalists in a state and the conservative gender attitudes of both fundamentalists and non-fundamentalists that reside in that state - thus testing the existence of a contextual association with attitudes. While we do not have the data to investigate exactly how this fundamentalist context influences individuals' gender attitudes, there are several factors that could explain a

contextual effect.

Books and Prysby (1988) identify three sources of contextual effects: 1) social interaction with more like-minded others; 2) conformity to prevailing norms; and 3) information flow patterns. Certainly, the repetitious process of day-to-day interactions could result in fundamentalists relaying conservative gender attitudes to non-fundamentalists through a variety of social structures like work, neighborhoods, and voluntary organizations (Huckfeldt and Sprague 1987). Fundamentalists' imperative to "witness" and bring people into the "flock of Christ" might even increase exchanges of this nature. Of course, daily information exchanges would also allow non-fundamentalists the opportunity to influence fundamentalists with more liberal gender ideologies thereby neutralizing a conservative fundamentalist message. However, fundamentalists may have a stronger resistance to liberal gender ideologies than non-fundamentalists have to conservative ones, since messages coming from a “non-saved” individual would most probably be dismissed as misguided, secular values that were not in accordance to God’s will (see Ellison and Musick 1993; McFarland and Warren 1992). In any case, as the proportion of fundamentalists in an area increases so will the odds that both fundamentalists and non-fundamentalists will interact with other fundamentalists and their conservative gender ideology.

Fundamentalist conservative messages could also be distributed through major institutional vehicles such as the media, education, and politics. As the proportion of fundamentalists increases, so does their probable influence over major social institutions through their roles as producers, broadcasters, journalists, teachers, principals, school board members, politicians, policy writers and the like. Moreover, even non-fundamentalists in predominantly fundamentalist areas may be hesitant to offend local sensibilities. Consequently, residents in

areas with higher proportions of fundamentalists may have greater exposure to media programs and advertisements, school curricula, teacher-student interactions, and legal/judicial systems that emphasize fundamentalist-based conservative gender attitudes. The social norms legitimized by these institutions would have an effect on both fundamentalists and non-fundamentalists alike. In addition, individuals wishing to challenge existing conservative ideologies might find themselves struggling against a fundamentalist constituency that could mobilize quickly and aggressively through their church congregations or larger Christian Right groups such as the Moral Majority or the Southern Baptist Convention (Regnerus, Sikkink & Smith 1999). Thus, the proportion of fundamentalists in a state could affect not only institutional support for conservative ideologies, but also their continued defense.

Finally, individuals may be influenced by their direct observations of the social structures surrounding them. Given the restrictive roles for women prescribed by fundamentalist doctrine, one would expect that in more fundamentalist areas women would occupy fewer prominent, public, authoritative positions. Employers would be more reluctant to promote women, and perhaps women would be more reluctant to seek public positions of authority. Thus, the general state population - both fundamentalist and non-fundamentalist - would be less likely to observe females as political leaders, CEOs, news broadcasters, journalists, principals, pastors, and the like. Individuals not informed directly by fundamentalist ideology about appropriate gender roles could still interpret this absence of women in powerful positions as a "natural" occurrence and therefore replicate similar conservative gender attitudes.

The theoretical and empirical implications of thoroughly documenting contextual effects on gender attitudes are expansive for the social sciences. This study represents a first step

toward a more dimensional understanding of contextual effects and their relationship to gender attitudes in the United States. We hypothesize that:

1) There will be a significant relationship between the proportion of fundamentalists in an area and the conservative gender attitudes of individuals within that area.

2) This relationship will remain significant even after controlling for relevant individual-level variables including fundamentalist affiliation and beliefs and relevant macro-level variables.

3) The contextual association of proportion fundamentalist will be evident for both individual fundamentalists and non-fundamentalists alike.

Methods

DATA

Individual data for this multi-level analysis come from the 1985- 1996 General Social Survey (GSS). The GSS, an annual nationwide survey, is drawn from the population of non-institutionalized, English-speaking adults in the United States, 18 years or older. Previous research reveals that the interactions between race, fundamentalism, region, and gender attitudes are complex and require detailed attention (Kane 1992; Ransford and Miller 1983; Rice and Coates 1995). Given this study's focus on the contextual effects of fundamentalism on gender attitudes, we are not able to give the race interaction issues adequate attention. In addition, preliminary analysis on the gender attitudes of 935 African Americans reveals neither the individual-level nor state-level associations with religion found for whites. Accordingly, the individual-level sample is limited to white respondents. A total of 7,734 non-Hispanic whites were asked the relevant gender and religious beliefs questions in the seven surveys between 1985 and 1996. Of those, 1,497 have missing data on one or more variables, primarily the gender

attitude items, and were excluded from the analysis. The final individual-level sample size is 6,237.[i]

The state-level religion data come from the 1990 National Study of Religious Identification (Kosmin and Lachman 1993) which provides information regarding the religious composition of the 48 contiguous states from a representative telephone survey of 113,000 people. The NSRI is missing information for Hawaii and Alaska and the GSS did not sample respondents from five additional states (ID, ME, NE, NM, and NV). The final structural-level sample equals 44 states (including the District of Columbia). In recoding the GSS geographic identifier codes into states, multi-state metropolitan areas were coded into the largest state.

MEASUREMENT OF VARIABLES

Dependent Variable: Gender Attitudes at the Individual level

Eight frequently asked GSS questions measure attitudes regarding women in politics and women working outside of the family. One item, approval of women working when her husband could support her (FEWORK), was dropped because it reduced overall scale reliability. The resulting summary scale has a range from 0 to 7 representing the number of conservative responses on the seven items (alpha=.78). The scale is strongly skewed. Thirty-four percent of the respondents chose no conservative responses on any of the seven questions while just 3% chose conservative responses on all of the questions. We use a poisson model to analyze those scale scores although similar results are obtained with an ordinal logistic model or even a simple linear model. (Refer to Appendix A for a summary of the questions and their loadings.)

Contextual Variable: Proportion of Fundamentalists in a State

State-level religion data from the NSRI have been categorized based on Tom Smith's (1990) classification of Protestant denominations. For this study, fundamentalist includes:

Baptists, Pentecostals, Church of Christ, Jehovah's Witnesses, Seventh Day Adventists, Assemblies of God, Holiness/Holy, Born Again/Evangelical, Nazarene, Church of God, Mennonites and Mormons.

We have elected to include denominations that might more readily be classified as evangelical or conservative Protestant in our fundamentalist contextual measure while recognizing ongoing debates regarding the subtle distinctions among these groups (Ammerman 1987**;** Brinkerhoff, Jacob, and Mackie 1987; Kirkpatrick 1993; Woodberry and Smith 1998). Studies comparing the groups have found evangelicals (Wilcox 1986) and Mormons (Brinkerhoff, Jacob, and MacKie 1987) to have less conservative attitudes than fundamentalists while still being more conservative than mainline Protestants.

We have also included all Baptists in our state-level measure of proportion fundamentalist. The NSRI does not differentiate between fundamentalist Southern Baptists versus more moderate Baptist denominations. However, given Southern Baptists' large size and their reputation for fundamentalist and evangelical ideologies, we think that Baptists' inclusion in the fundamentalist category is warranted.

The NSRI also fails to provide a distinction between white and African-American Southern Baptists. There is evidence to suggest that African-American churches are more likely to preach liberal social equality and collective action messages that counteract traditional Bible doctrine; moreover, religiosity and orthodoxy do not have significant conservative effects on African-American's gender attitudes (Wilcox and Thomas 1992). We might expect that African-American Southern Baptists may not hold as conservative gender attitudes as their white Southern Baptists counterparts. This overly broad Baptist category reinforces our decision to utilize a white-only sample. The inclusion of "marginal" fundamentalist groups and non-

fundamentalist Baptists in our broad state-level category should serve to underestimate any relationship of proportion fundamentalist with gender attitudes.

Individual Level Variable: Fundamentalism

At the individual-level, we use three separate measures to identify religious support for conservative gender attitudes. First, we follow the GSS categorization of Protestants (Smith 1990): fundamentalist Protestants, moderate Protestant, and liberal Protestants. We also identify Catholics, Jews, others, and those with no religious affiliation.

Second, Ammerman (1987) and Wilson (1986) have argued that doctrinal beliefs may be a stronger indicator of fundamentalism than denominational affiliation and may be the crucial explanatory variable for gender attitudes. To capture beliefs, we included the response to the question:

Which of these statements comes closest to describing your feelings about the Bible?

a. The Bible is the actual word of God and is to be taken literally, word for word.

b. The Bible is the inspired word of God but not everything in it should be taken literally.

c. The Bible is an ancient book of fables, legends, history and moral precepts.

Response "a" is coded as fundamentalist while all other responses are coded as non-fundamentalist.[ii]

Third, Mason and Lu (1988), among others, have found that frequent church attenders have more conservative gender attitudes even controlling for denomination. To measure this aspect of religiosity, we include an ordinal variable measuring church attendance with zero (0) equaling “never” and eight (8) equaling “several times a week.”

These three individual measures of religiosity overlap considerably. Fundamentalist Protestants more often believe in a literal interpretation of the Bible (51%) than do non-

fundamentalists (18%) and are more likely to attend religious services at least every week (36%) than are non-fundamentalists (23%). More importantly for our multi-level analyses, people in states with high proportions of fundamentalists go to religious services more often and are more likely to believe in a literal interpretation of the Bible even holding constant their own denominational affiliation and other personal characteristics such as education and age.

Control Variables

Structural-level Control Variables

The limited number of states (44) restricts the number of controls that can be simultaneously entered in the model. We include seven state-level controls in our models: 1) South (11 Confederate States)[iii], 2) proportion of the state population that is black, 3) proportion of the state population that lives in a rural area, 4) proportion of females in the state's labor force, 5) proportion of the state population that is divorced, 6) proportion of the state population that has never married, and 7) proportion of the state population with some college education.

Race, rural residence, and education levels have been shown to affect gender attitudes at the individual-level and these vary by the South-nonSouth distinction that also affects gender attitudes (Hulbert 1988; Mason, Czajka, and Arber 1976; Rice and Coates 1995; Thornton and Freedman 1979). In addition, Banaszak and Plutzer (1993) showed that divorce rates and women's labor force participation levels had significant effects on European gender attitudes so we include these measures as well.

Individual level Control Variables

Several additional variables have been shown in past research to affect gender attitudes (Hertel and Hughes 1987; Hurlbert 1988; Mason Czajka, and Arber 1976; Mason and Bumpass 1970; Rice and Coates 1995; Thornton, Alwin, and Camburn 1983). We include as

compositional controls in our analysis: *sex* - (male = 1); *age* - respondent's age at the time of the survey; *education* - years of school completed; *number of children* - 0 to 8 or more under the age of 17 in the respondent's home; *family income* - logged; *work status* - respondent is a woman and is working or respondent is a man and his wife is working (all other = 0); *marital status* - dummy variables for married, never married, widowed, divorced or separated (married is omitted); and *non-metropolitan area* - (non-metropolitan area = 1). In addition, a dummy variable for missing family income is included to recapture a portion of the sample that were categorized as "refuse", "don't know", or "no answer" on this measure. A set of dummy variables for year of survey is included to control for changes in attitudes between the survey years 1985 and 1996. Finally, the GSS samples underrepresented respondents living in households with more adults, so we also include a count of the number of adults in the household as a control.

Statistical Analysis

We analyze the data with hierarchical linear modeling. Many studies examining contextual effects use individual-level data with appended contextual variables, but that design underestimates the standard errors of the contextual variables (Bryk and Raudenbush 1992). Hierarchical linear modeling corrects for this bias by allowing for simultaneous estimation of full micro-level and state-level models.[iv] The coefficients obtained in the individual-level analysis can be considered the dependent variables in the state-level equation. The method adjusts for the correlated errors among individuals within the same states and uses the appropriate degrees of freedom for the state-level hypotheses. In the analysis of average regional differences, the individual-level equation is as follows:

(1) $Y_{ij} = \beta_{0j} + \Sigma\beta_{kj}(X_{ikj}-X_{..k}) + r_{ij}$

where: Y_{ij} = ATTITUDE for individual i in state j

β_{0j} = the intercept (average respondent s attitude) in state j

β_{kj} = the slopes for k individual-level control variables X_{ijk} (fixed across states; see below)

$(X_{ikj} - X_{..k})$ = individual-level variables (centered at their means)

r_{ij} = the individual level error term

In the analysis of average state differences, the state-level equation takes the form:

(2) $\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Proportion Fundamentalist}_j) + \Sigma\gamma_{0m}Z_{jm} + u_{0j}$

(3) $\beta_{kj} = \gamma_{k0}$

where: γ_{00} = intercept for the state-level model of the average respondent s attitude (β_{0j})

γ_{01} = the effect of Proportion Fundamentalist on the average respondent-s attitude

u_{0j} = the error term for the state level random effect on the intercept

γ_{0m} = state-level coefficients for m state-level control variables Z_{jm}

γ_{k0} = constant coefficients β_{kj} across all states

In one model we allow one of the β_{kj} to vary randomly across states, when we test whether the individual-level fundamentalism effect varies by state-level percent fundamentalist.

RESULTS

As the mapping of attitudes in Figure 1[v] demonstrates, the highest level of conservative gender attitudes may be found primarily in the Southern “Bible Belt” region of the United States. Gender attitudes are also conservative in Utah, a phenomenon that has often been attributed to the large proportion of Mormons residing in the state.

-----Figure 1 about here-----

The association of states with more conservative gender attitudes also more often being states with higher proportions of fundamentalists may be seen more clearly in the scattergram in Figure 2. States with large proportions of fundamentalists such as Utah and Alabama score high on the gender attitude scale while states with few fundamentalists such as Rhode Island and Massachusetts score low. Prominent among the exceptions to the regression line is the District of Columbia where the gender attitudes are less conservative than what would be expected based on its religious composition. The problem here is that the NSRI based fundamentalism measure includes African-American Baptists who do not support the same levels of gender conservatism as their white Southern Baptist counterparts (Wilcox and Thomas 1992). A more refined measure of fundamentalism would reduce this outlier and strengthen the state-level relationship.

-----Figure 2 about here-----

The scattergram in Figure 2 only confirms a bivariate state-level association between gender attitudes and fundamentalism. In fact, gender attitudes are correlated with several aspects of a state (i.e. education levels) so a more multivariate analysis is required to address causal questions. Moreover, the bivariate association across states says nothing about whether the association is compositional or contextual; that requires a multi-level analysis. Our study examines 1) whether this correlation between gender attitudes and the proportion fundamentalists in a state is a statistically significant relationship, 2) if this relationship between attitudes and proportion fundamentalist can be explained by compositional effects of the individuals' own religious affiliation, beliefs and practices alone, and 3) how the proportion of fundamentalists in a state affect both fundamentalists and non-fundamentalists.

-----Table 1 about here-----

Table 1 reports the stepwise results of the multi-level analysis. Model 1 replicates the state-level relationship in the scattergram of Figure 2. Without any control variables, proportion fundamentalist has a strong significant relationship (γ=.658) with gender attitudes. Model 2 adds seven state-level controls, five of which also have significant bivariate relationships with gender attitudes (proportion with some college, South, female labor force participation, proportion rural, proportion never married; results not shown). Even with these control variables, proportion fundamentalist remains significantly related to gender attitudes (γ=.598). As predicted in Hypothesis One, as the proportion of fundamentalists in a state increases, whites' gender attitudes within that state become significantly more conservative. Of the seven state-level controls, proportion college educated is the only additional variable that remains significantly associated with average gender attitudes (γ=-.771). This is not surprising given the strong individual-level education relationships reported in the literature.

States with more fundamentalists may have more conservative gender attitudes simply because individual fundamentalists have more conservative gender attitudes and where there are more of these individuals the average gender attitudes are more conservative. On the other hand, these states may be more conservative because even non-fundamentalists in the state hold more conservative attitudes given the general conservative culture in states with higher proportions of fundamentalists. Results from Model 4 test this compositional effect argument by controlling for individuals' own religious affiliations, beliefs and practices. The proportion fundamentalist variable remains significant (γ=.310) even after taking into account a comprehensive array of individual-level variables. White individuals residing in states with higher proportions of fundamentalists retain more conservative gender attitudes irregardless of whether they

themselves are associated with fundamentalist practices and beliefs. A comparison of the proportion fundamentalist coefficient in Model 2 (γ=.598) with the proportion fundamentalist coefficient in Model 3 (γ=.310) indicates that almost half of the total state fundamentalist effect is contextual and about half is compositional.

At the individual-level, whites who have a fundamentalist Protestant affiliation, who attend church more often, and who believe in a literal interpretation of the Bible are more likely to hold conservative gender attitudes. The proportion fundamentalist in a state does not negate the effects of individual beliefs and practices on individuals' gender attitudes. Indeed, in a model without any state-level predictors (not reported here), the individual-level coefficients are almost identical to those reported in Model 3. The biggest difference is the individual-level coefficient for fundamental protestants which reduces from .177 to .153 when state-level fundamentalism is controlled. These results confirm past individual-level research on gender attitudes. However, the more intriguing finding is that individuals' gender attitudes are affected by more than just their own individual religious practices and beliefs - they are also affected by the larger religious context of *other* peoples' religious affiliations.

Unlike the proportion fundamentalist variable, which has a strong contextual effect beyond that which can be explained with individual-level variables alone, the proportion college effect is primarily compositional in origin. The significant effect of proportion college found in Model 2 (γ=-.771) disappears once individual-level controls are added in Model 3 (γ=-.003). Even adding just a single control for individuals' education eliminates the state-level education relationship with gender attitudes (results not shown). The proportion college effect is a compositional effect - the result of the more liberal gender attitudes of individuals with higher

education. As education increases at the individual-level, conservative gender attitudes decrease, and this entirely explains the state-level effect.

As previously noted, region has been the primary contextual-level control variable used in previous studies examining gender attitudes. Both Hurlbert (1988) and Rice and Coates (1995) found more conservative gender attitudes in the South even after controlling for individual-level effects. We find that this significant "Southern effect" on gender attitudes is primarily a consequence of the proportion fundamentalist in a state. Thus, the Southern effect is probably a "Bible Belt" effect. When only South is in the model with no state or individual-level controls, it has a significant conservative association with gender attitudes (γ= .187). However the addition of proportion fundamentalist to the state-level model with no other controls reduces the South coefficient to .014 with no statistical significance (not shown in table). As Model 3 in Table 1 shows, the South coefficient remains non-significant in the full model.[vi]

Interaction Between State-level and Individual-level Religion

While the proportion of fundamentalists in a state has an overall effect on gender attitudes, a question arises as to whether this contextual effect varies by the individuals' own fundamentalist affiliations, beliefs, and practices. On the one hand, it could be argued that white fundamentalists living in areas with high proportions of other fundamentalists are especially likely to have their conservative gender beliefs reinforced by both more interaction with individuals that retain similar attitudes and by a social structure that may institutionalize these gender ideologies into law, policy, and educational practice. Thus, fundamentalists' conservative gender attitudes may be intensified by the context of living in a fundamentalist area. Conversely, one might expect that the contextual effect of proportion fundamentalist might be stronger for

non-fundamentalists since fundamentalists are exposed to conservative gender ideology no matter where they live while non-fundamentalists encounter this conservative ideology mainly if they happen to live in a fundamentalist area.

To explore these questions, we tested whether the state-level proportion fundamentalist variable affected the size of the three micro-level coefficients associated with fundamentalism - affiliation, church attendance, and belief in the Bible as literally true. The results (not shown in table) reveal significant interaction effects between the proportion of fundamentalists in a state and individuals' religious affiliation (γ=-.488), but not between proportion fundamentalist and attendance (γ=.008), or between proportion fundamentalist and literal interpretations of the Bible (γ=-.089). Individuals who believe in a literal interpretation of the Bible and/or attend church frequently are no more or less affected by the proportion of fundamentalists in a state than are individuals who do not believe in a literal interpretation of the Bible and/or do not attend church frequently. However, state-level fundamentalism matters more for whites who do not identify with fundamentalist denominations than for white fundamentalists themselves. This interaction is illustrated in Figure 3. White fundamentalists maintain their conservative attitudes whether they are in a state with a high proportion of fundamentalists or a low proportion of fundamentalists.

-----Figure 3 about here-----

The denomination and proportion fundamentalist interaction effects suggest some possible mechanisms of contextual influences. In fundamentalist denominations where there is a strong set of core beliefs including the inerrancy of the Bible, churches may have more consistency in their teachings across states irregardless of the cultural milieu within which they

exist. Therefore, individuals who believe in Bible literalness have conservative gender attitudes whether they are in New Hampshire or Alabama. On the other hand, non-fundamentalist denominations may exhibit greater variations in interpreting Christian doctrine relative to their local socio-historical context. For example, an Episcopalian sermon in Texas may resemble more closely a fundamentalist Protestant sermon than it does another Episcopalian sermon in New Hampshire. The question is, how might a contextual proportion fundamentalist effect be inundating denominational or regional norms? Even the minority of individuals who claim no religious affiliation and do not attend church may be affected significantly by the larger conservative context supported by fundamentalists and non-fundamentalists alike.

Our primary hypotheses have been supported - there is a state-level proportion fundamentalist effect that exists beyond compositional effects and it impacts whites in non-fundamentalist denominations more so than whites in fundamentalist denominations. However, Peek, Lowe, and Williams (1991) found that white women's gender attitudes are affected by individual beliefs (like Bible literacy) while white men's conservative gender attitudes are due more to fundamentalist affiliations. This suggests that the contextual fundamentalism effect may be stronger among men so we have also examined the relationship between sex and proportion fundamentalist. We find no significant interaction effect between the sex and proportion fundamentalist in the full model (γ=-.151). Living in a state with a high proportion of fundamentalists does not differentially affect white men's and women's gender attitudes.

At the individual-level, we have also tested for interactions between sex and the three individual religion variables (affiliation, attendance, and Bible literalness). The results indicate the only significant sex interaction effect is with sex and church attendance (γ=-.037). As church attendance increases, white women's gender attitudes become more conservative. Men, who are more conservative in any case, are less affected by church attendance. These individual-level findings, which reverse those of Peek, Lowe, and Williams (1991), actually reinforce their argument for increased gender sensitivity in sociological examinations of religion. Such an investigation is beyond the scope of this paper, but we would agree that a more thorough understanding of gender, contextual effects and individual effects is warranted.[vii]

DISCUSSION

This study has reinforced a general tenet in sociology - "context matters." Our results demonstrate that residents of states with more fundamentalists hold more conservative gender attitudes. This contextual effect remains strong even after controlling for individual-level variables, or a compositional effect. As the proportion of fundamentalists in an area increases, both fundamentalists and especially non-fundamentalists exhibit more conservative gender attitudes.

While this study documents the relationship between proportion fundamentalists and gender attitudes, it cannot clarify *how* this relationship is maintained. How are fundamentalist messages regarding gender roles being distributed? Institutionally, through media, public school systems, and political policy? Interactively, through social relationships and networks that include more conservative contacts? Or indirectly, through observation of fewer female models

in the local social structure? In other words, how do more conservative gender attitudes become the contextual "norm" in an area?

We also have not been able to adequately address an alternative, area selection, interpretation of the state-level effects. It may be that people with conservative gender attitudes are more likely to migrate to states where fundamentalism prevails, and less likely to migrate away. The proportion fundamentalist in an area may not change people's gender attitudes, but it might select out people who have more conservative gender attitudes. What types of people migrate to Alabama or to Massachusetts? What types of people leave those areas? It seems likely that religious and gender attitudes may play a role in migrants' decisions about where they would feel most comfortable living or whether they want to leave a place at all. The migration decisions would also show up in our analyses as contextual effects. If people with liberal gender attitudes are more likely to avoid Bible Belt states and if people with traditional gender attitudes find those states more appealing, then selective migration would produce a "contextual" association between religion and gender attitudes even after controlling for individual religious beliefs, affiliations, and practices.

Our conclusion of an independent contextual effect may also be reversed by a more extensive array of individual-level controls - this is the basis of Hauser's (1970) argument against the existence of contextual effects. Perhaps our contextual effect is just the residual of unmeasured compositional effects. Our individual-level indicators are vulnerable to measurement errors, and more complex individual-level variables might change our findings. For instance, expanding the individual-level variables to include those that capture family socialization, such as parents' religious affiliation, parents' socioeconomic status and so on, could reduce the fundamentalist contextual effect. Nevertheless, our full model incorporates a

comprehensive array of the major individual-level variables that have been documented to have significant effects on gender attitudes, and they can only account for half of the state differences.

While more individual-level variables might reduce the contextual effect, better state-level data would strengthen it. Future studies of contextual-level fundamentalism and individuals'gender attitudes could benefit from data that provides a tighter definition of fundamentalism, and more state-level data such as church attendance, biblical literalness, and self-defined fundamentalist identification (Woodberry and Smith 1998). Extended research into the proportion fundamentalist effect as it varies across sex and race could produce a more complex understanding of these interactions. For example, what is the proportion fundamentalist effect on the gender attitudes of African-American men versus women?

Proportion fundamentalist in a state could also be applied as a primary explanatory variable for other social attitude studies - especially those that have found a significant Southern effect that could not be explained away by individual level controls. The U.S. South has been cited as a region with more conservative race, political, and sexual attitudes (Hulbert 1989). Studies have found Southerners to be more reluctant to extend civil liberties to various unpopular groups (see Ellison and Musik 1993). Simultaneously, more conservative race, political, and sexual attitudes as well as higher levels of intolerance towards certain groups (i.e. homosexuals) have been found among fundamentalists (see Ellison and Musik 1993). It is reasonable to assume that a significant portion of the conservative Southern effect found on an array of social attitudes may really be a contextual "Bible Belt" effect. As with gender attitudes, various social attitudes may be significantly affected by the proportion of fundamentalists that reside within their state. We would suggest that the "Southern effect" literature be re-examined with the

inclusion of proportion fundamentalist to help explain previously elusive regional variations in attitudes.

This research serves as one model for future contextual examinations of gender attitudes. Yet, it represents only one piece of a very complex puzzle. Future research is needed to move beyond acknowledging the existence of a contextual effect to understanding the mechanisms of that contextual effect. Interpreting this intricate interweaving of individual lives and the environment in which they exist is essential in completing the *sociological imagination* circle (Mills 1959).

Endnotes

1. We also used an alternative scale of gender attitudes by taking the mean of non-missing items. The sample size for that analysis is 7,453, but the results are essentially the same as with the smaller sample.
2. The 1985 GSS used an alternative form of this question for half of the sample. These responses were dropped from our analysis.
3. We have also used the Census definition of South and found no South effect once proportion fundamentalist is included in the model.
4. As in most analyses of states (or nations, counties, etc.), this analysis treats states as random effects despite the fact that they comprise the entire population and not a sample from which we are attempting to infer population parameters. Thus, statistical significance does not carry the same meaning here as when sampling from a larger population.
5. The attitude scores that are mapped in Figure 1 are adjusted averages of the seven-item scale. Estimates from a random effects model are used because they pull the state means towards the national mean when state sample sizes are small and the state averages are therefore less reliable (Bryk and Raundenbush 1992). In addition, five states are not sampled by the GSS (ID, ME, NE, NM and NV) and so would have missing data in Figure 1. We have interpolated their values by using the state-level equation (2) in Table 1.
6. In addition, the South has other regional markings beyond just the "Bible Belt" including, the "Football Belt" (emphasis on college sports), and the "Pageant Belt" (importance attached to beauty pageants). It would be interesting to test these other cultural markers to examine how they might also explain Southern patterns of gender attitudes. We are indebted to a reviewer for these alternative interpretations.

7. While not a primary component of our analysis, year and proportion fundamentalist interactions reveal that the proportion fundamentalist effect was not any more or less significant in the mid 1980s than in the late 1990s.

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APPENDIX A: Sexism Items and Loadings

Do you agree or disagree with this statement? Women should take care of running their homes and leave running the country up to men. [FEHOME]

Disagree ‘ 0, Agree ‘ 1, Not sure ‘ missing, Factor loading ‘ .73

If your party nominated a woman for President, would you vote for her if she were qualified for the job? [FEPRES]

Yes ‘ 0, No ‘ 1, Don’t know ‘ missing, Factor loading ‘. 56

Tell me if you agree or disagree with this statement: Most men are better suited emotionally for politics than are most women. [FEPOL]

Disagree ‘ 0, Agree ‘ 1, Not sure ‘ missing, Factor loading ‘ .63

A working mother can establish just as warm and secure a relationship with her children as a mother who does not work [FECHLD]

Strongly agree ‘ 0, Agree ‘ 0, Disagree ‘ 1, Strongly disagree ‘ 1, Factor loading ‘ .59

It is more important for a wife to help her husband’s career than to have one herself. [FEHELP]

Strongly disagree ‘ 0, Disagree ‘ 0, Agree ‘ 1, Strongly agree ‘ 1, Factor loading ‘ .71

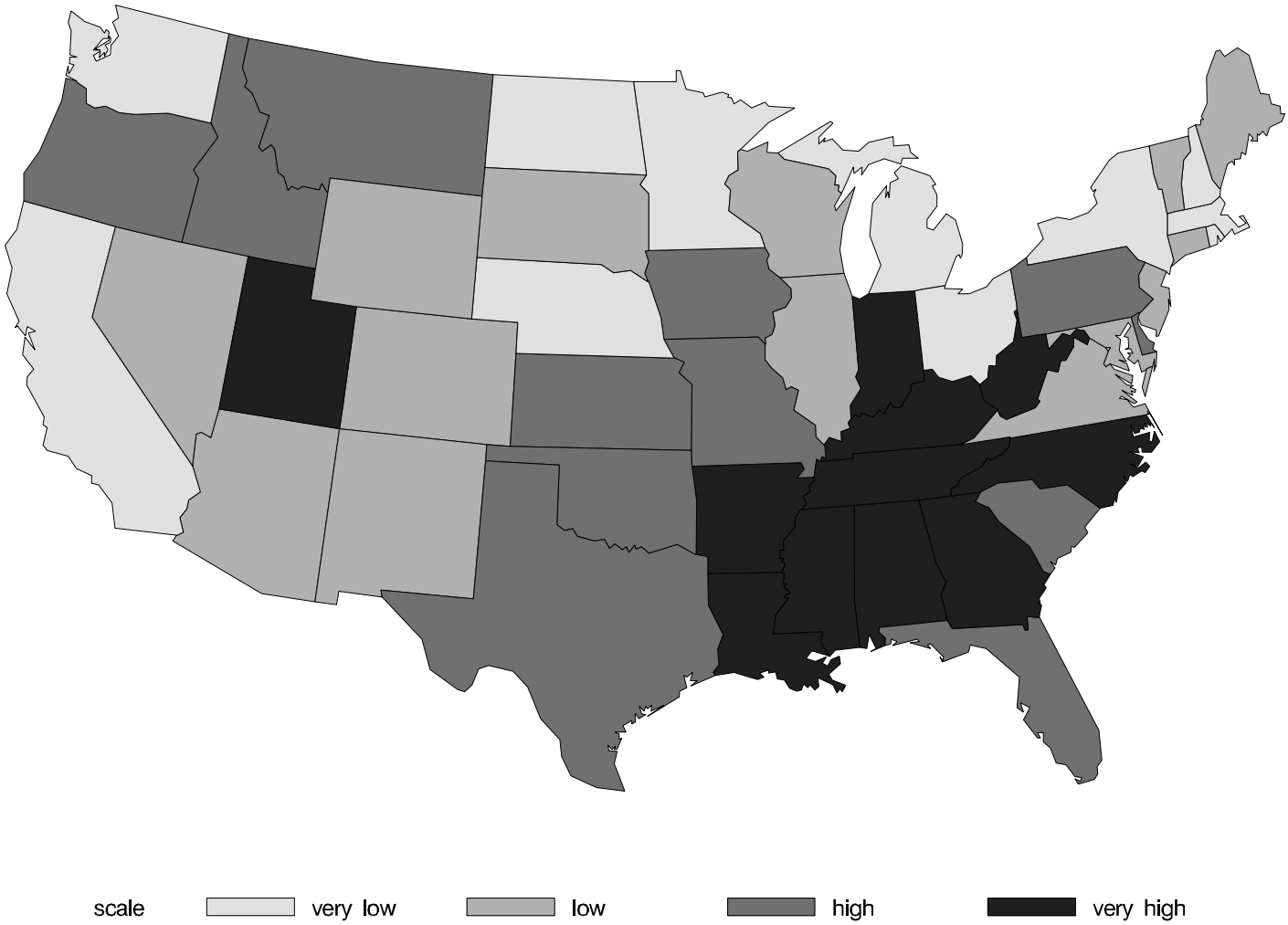
A preschool child is likely to suffer if his or her mother works. [FEPRESCH]

Strongly disagree ‘ 0, Disagree ‘ 0, Agree ‘ 1, Strongly agree ‘ 1, Factor loading ‘ .60

It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family. [FEFAM]

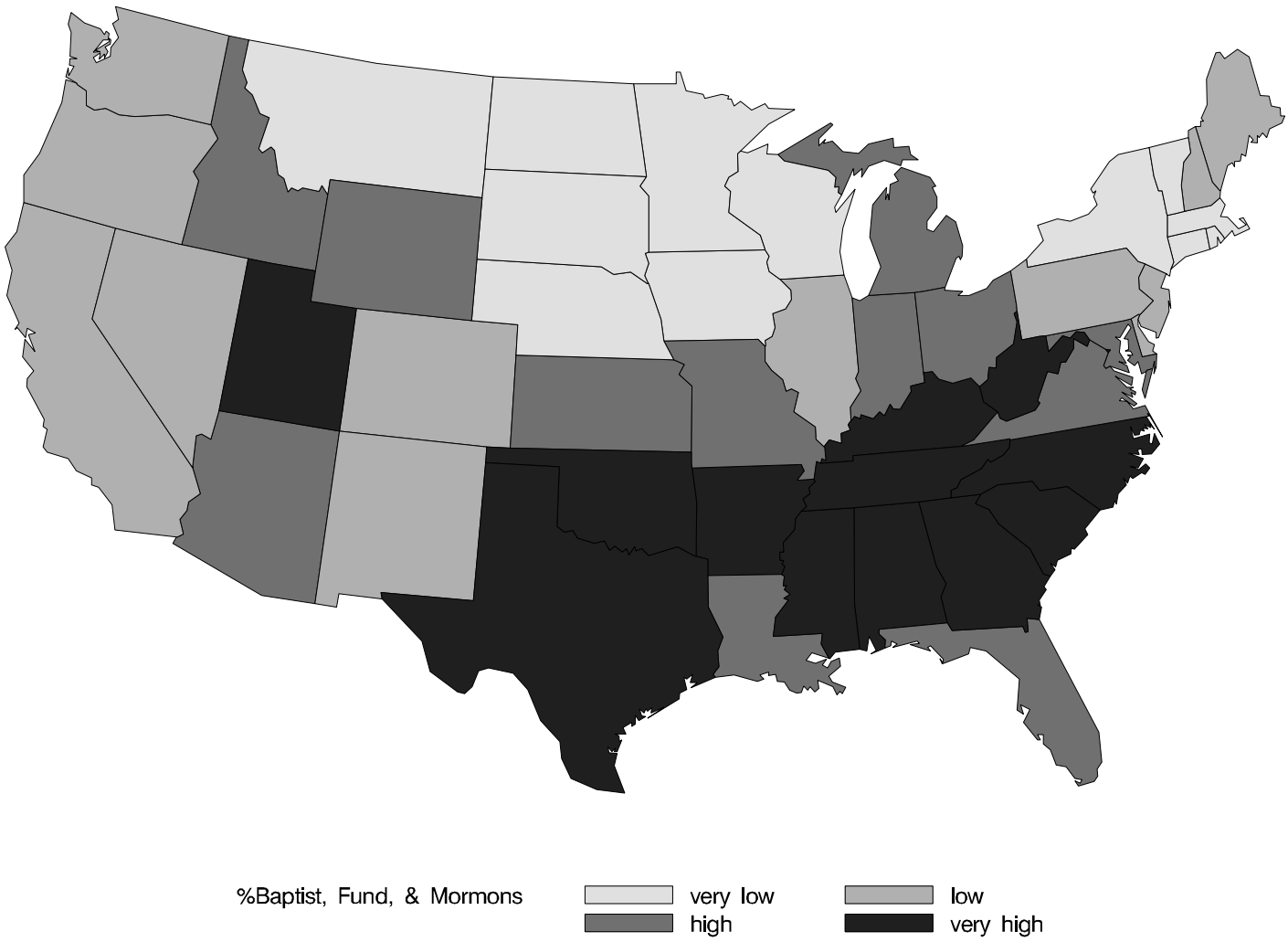
Strongly disagree ‘ 0, Disagree ‘ 0, Agree ‘ 1, Strongly agree ‘ 1. Factor loading ‘ .76

Figure 1. Conservative Gender Attitudes



Source: General Social Surveys, 1985–1996

App. Figure 1. Percent Fundamentalist



Source: General Social Surveys, 1985–1996

Figure 2. Scattergram of Gender Attitudes and Percent Fundamentalist by State.

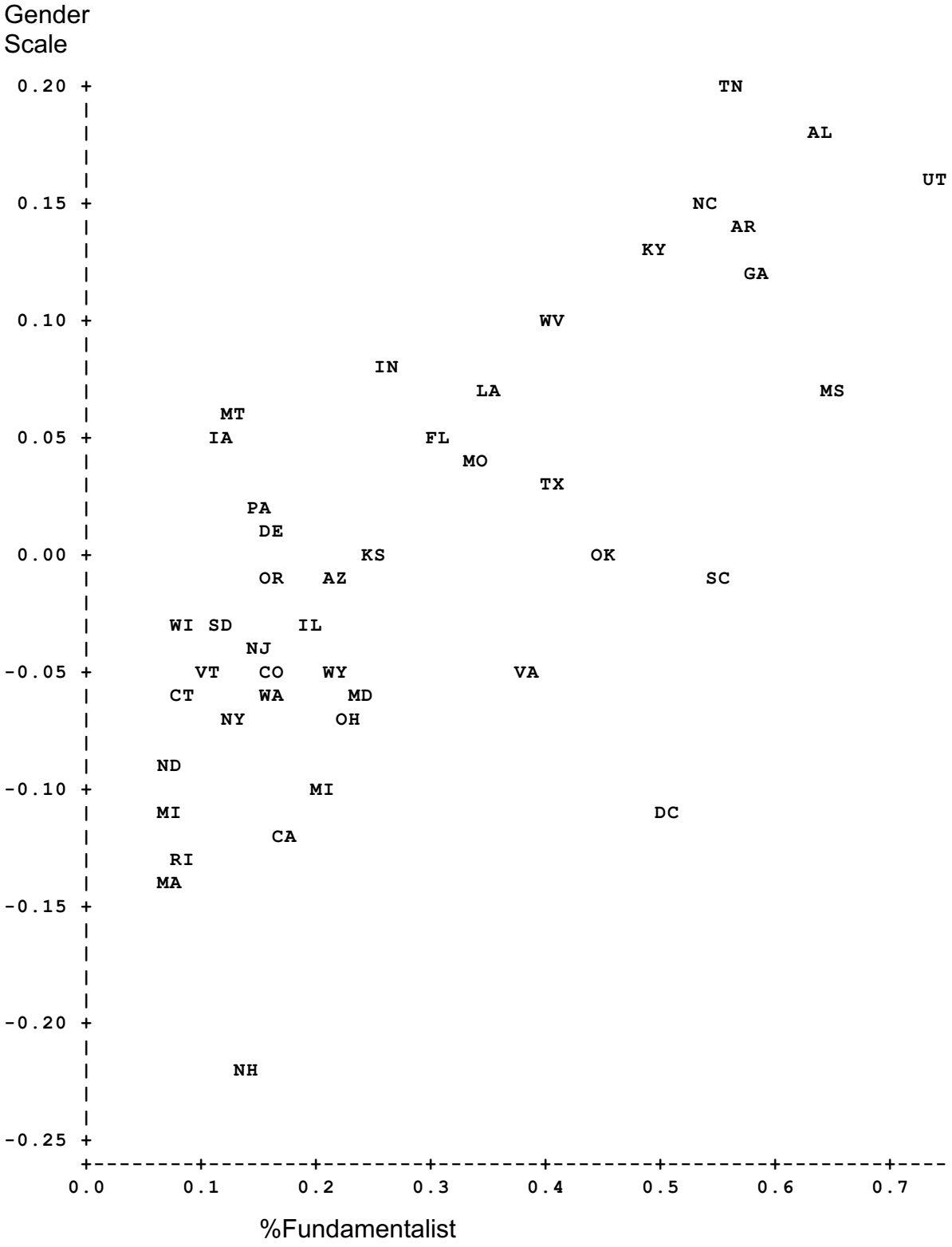
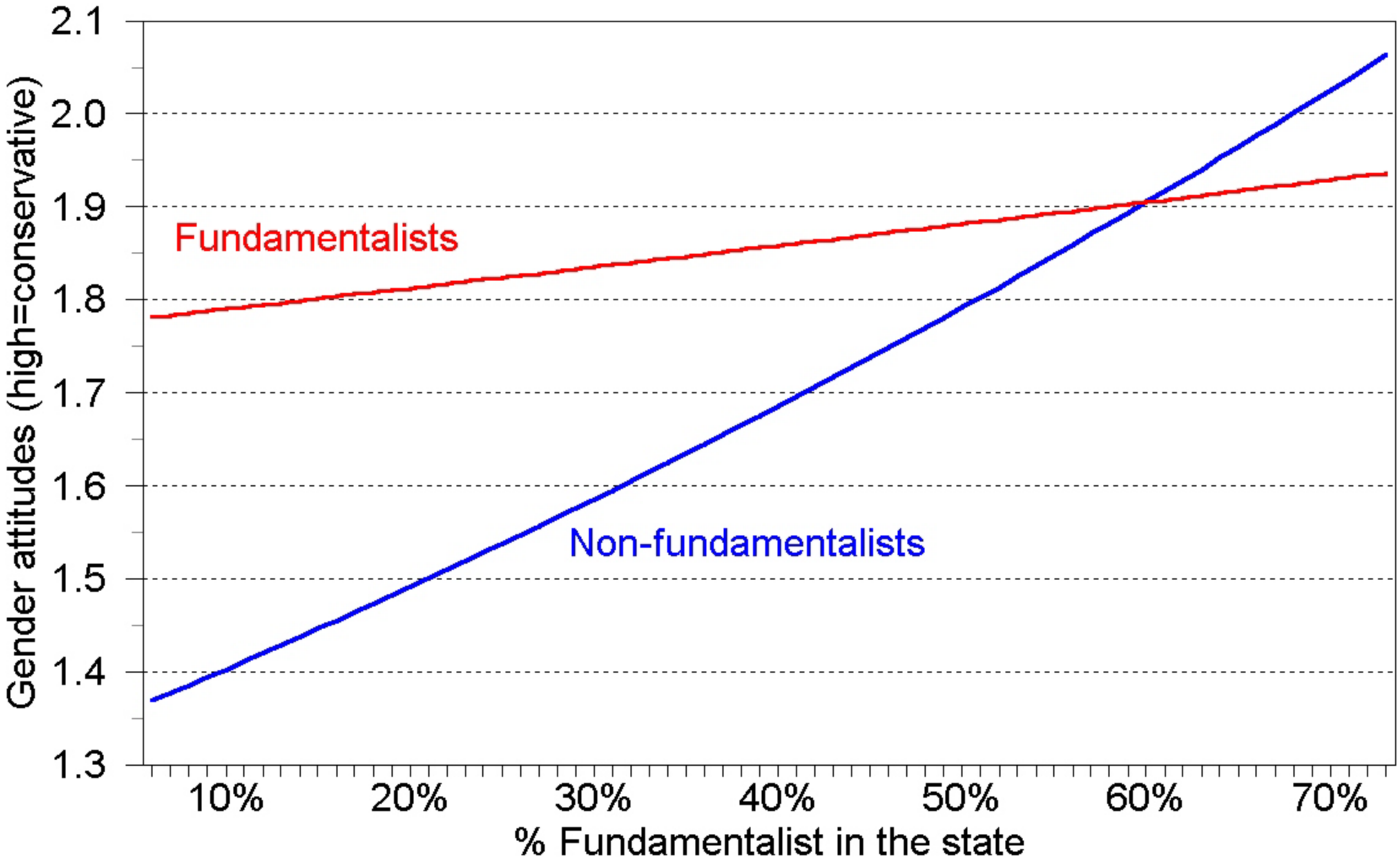


Figure 3. Gender attitudes by individual and state fundamentalism



Source: General Social Surveys: 1985-1996

Table 1. Stepwise Multilevel Models of Gender Attitudes

	Model 1		Model 2		Model 3	
State-level coefficients						
Intercept	0.488	***	1.344	***	0.799	**
% Fundamentalist	0.658	***	0.598	***	0.310	**
% With some college			-0.771	*	-0.003	
% African American			-0.206		-0.297	
South			0.010		-0.011	
Female labor force participation			-0.286		-0.701	+
% Rural			-0.173		-0.163	
% Divorced			-0.754		0.244	
% Never married			-0.768		0.444	
Variance of state-level intercept	0.00116		0.00009		0.00009	
Individual-level coefficients						
Fundamentalist Protestant					0.153	**
Moderate Protestant					0.059	
Liberal Protestant					-0.019	
Jewish					-0.140	
No religion					-0.040	
Other					0.145	+
Attendance					0.044	***
Bible literalism					0.243	***
Age					0.016	***
Education					-0.039	***
Family income					-0.058	***
Missing family income					0.073	+
Sex (1=Male)					0.296	***
Divorced/Separated					-0.132	**
Widowed					-0.005	
Never married					-0.040	
Children at home					0.005	
Woman works					-0.275	***
Nonmetropolitan area					-0.003	
Number of adults					0.022	
Year dummies	yes		yes		yes	

+p<.10, *p<.05, **p<.01, ***p<.001

[i] We also used an alternative scale of gender attitudes by taking the mean of non-missing items. The sample size for that analysis is 7,453, but the results are essentially the same as with the smaller sample.

[ii] The 1985 GSS used an alternative form of this question for half of the sample. These responses were dropped from out analysis.

[iii] We have also used the Census definition of South and found no South effect once proportion fundamentalist is included in the model.

1. [iv] As in most analyses of states (or nations, counties, etc.), this analysis treats states as random effects despite the fact that they comprise the entire population and not a sample from which we are attempting to infer population parameters. Thus, statistical significance does not carry the same meaning here as when sampling from a larger population.

[v] The attitude scores that are mapped in Figure 1 are adjusted averages of the seven-item scale. Estimates from a random effects model are used because they pull the state means towards the national mean when state sample sizes are small and the state averages are therefore less reliable (Bryk and Raundenbush 1992). In addition, five states are not sampled by the GSS (ID, ME, NE, NM and NV) and so would have missing data in Figure 1. We have interpolated their values by using the state-level equation (3) in Table 1.

[vi] An alternative interpretation of our findings is that muticollinearity issues may be obscuring the effects of the other state-level variables. In addition, The South has other

regional markings beyond just the "Bible Belt" including, the "Football Belt" (emphasis on college sports), the "Pageant Belt" (importance attached to beauty pageants) as well as sharing a history of being Confederate states. We have not included structural-level controls to examine how these Southern patterns could be affecting individuals gender attitudes. (We are indebted to a reviewer for these alternative interpretations.)

[vii] While not a primary component of our analysis, year and proportion fundamentalist interactions reveal that the proportion fundamentalist effect was not any more or less significant in the mid 1980s than in the late 1990s.