

Accounting for Spatial Variation in Tolerance: The Effects of Education and Religion

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Abstract

Prior research has shown that individuals living in Southern areas express significantly less tolerant attitudes than the rest of the nation, while individuals residing in urban areas express significantly more tolerant attitudes than their rural peers. We seek to explain these generally unspecified Southern and urban effects by identifying demographic contextual factors that affect individuals' tolerance levels. Using 1976–2000 General Social Survey and 1990 Census data, we find that net of individual factors, residing in an area with a larger proportion of college graduates significantly increases individual levels of tolerance, while residing in an area with a larger proportion of evangelical Protestants significantly decreases tolerance. We also find that the Southern and urban effects on tolerance become non-significant once contextual-level controls are added.

Forthcoming in *Social Forces*, tentative publication date: June 2006. We would like to thank Judith Blau, Kerry Strand, Reeve Vanneman, Thomas Wilson, and the anonymous reviewers of *Social Forces* for their feedback on this paper. We also thank Tom Smith of NORC for making available the geographic identifier codes for the GSS data. The Faculty Development and Research Committee of Towson University provided support for this research. Direct correspondence to: Laura Moore, Department of Sociology, Hood College, 401 Rosemont Avenue, Frederick, MD 21701 (moore@hood.edu). An earlier version of this paper was presented at the 2004 annual meeting of the Eastern Sociological Society, New York, NY. The authors contributed equally to this research.

Civil liberties are a cornerstone of American ideology, but they have been denied to many Americans either through *de jure* or *de facto* means for much of the nation's history. While court decisions and legislation passed in the last fifty years have explicitly guaranteed these rights, there nevertheless remains public debate in the United States about such issues as free speech, privacy, and assembly, especially for controversial groups. The passage of referenda that restrict the civil rights of illegal immigrants and the movement to ban same-sex marriages are just two recent examples that suggest that not all Americans are comfortable with putting the principle of universal rights into practice.

It is therefore no surprise that for more than forty years social scientists have been interested in Americans' willingness to extend civil liberties to unpopular groups, which has often been defined in the literature as "tolerance" (Dynes 1967; Stouffer 1963). This research has been primarily focused on the individual-level determinants of tolerance, but it has also shown that significant spatial variations in tolerance exist. Specifically, individuals who live in the South and in rural areas are on average less tolerant than people who live outside of the South and in urban areas, even after controlling for individual factors (Abrahamson and Carter 1984; Dynes 1967; Nunn, Crockett and Williams 1978; Wilson 1991, 1994).

Theories explaining tolerance have emphasized that exposure to diverse values, beliefs, and lifestyles tends to increase one's willingness to extend civil liberties (Stouffer 1963; Wirth 1938). Inherent in these models is an assumption of contextual effects: individuals' attitudes are determined not only by their personal characteristics (e.g., education, age, income) but also by the characteristics of the people and social contexts that surround them. However, the numerous studies of tolerance to date have focused almost exclusively on individual-level factors and have not sought to explain these spatial variations (Abrahamson and Carter 1984; Beatty and Walter 1984; Dynes 1967; Ellison and Musick 1993; Nunn, Crockett and Williams 1978; Stouffer 1963; Tuch 1987; Weakliem and Biggert 1999; Williams, Nunn and St. Peter 1976; Wilson 1991, 1994).

In this paper, we show that the Southern and urban "effects" are actually proxies for more specific contextual factors that affect individual levels of tolerance. Using multilevel modeling with

1976–2000 General Social Survey (GSS) data, we test a series of contextual hypotheses by controlling for individual-level characteristics while adding demographic contextual properties such as percent of the population who are college graduates, racial diversity, religious composition, percent over the age of 65, and percent new residents, in addition to the Southern and urban measures. We find that the proportion of college-educated individuals in an area explains the rural/urban gap in tolerance levels, while religious composition explains the Southern effect.

Theoretical and Empirical Evidence

THEORETICAL EXPLANATIONS FOR SPATIAL VARIATION IN TOLERANCE

Two “environmental” variables that have consistently been associated with individuals’ tolerance towards civil liberties are region and urban status. People located outside of the South and/or inside urban areas have been found to exhibit significantly higher tolerance levels than people residing in the South and/or rural areas (Abrahamson and Carter 1984; Dynes 1967; Nunn, Crockett and Williams 1978; Wilson 1991, 1994).

Two competing, but not mutually exclusive, explanations have been offered for these spatial variations in tolerance – compositional and contextual (Figure 1, upper panel). According to the *compositional explanation*, spatial variations in tolerance exist because some areas have more people with individual characteristics that are associated with lower tolerance (e.g., less education, fundamentalist religious affiliations, older age) than other areas. Therefore, the apparent environmental influence on attitudes is simply the consequence of individual-level characteristics (which may or may not be measurable) and not a contextual effect at all (Hauser 1970).

In contrast, the contextual explanation asserts that variation in norms and values across places exist above and beyond any compositional effects. Advocates of the contextual explanation have typically offered a *subcultural explanation* in which the cities and regions are described as having *sui generis* cultural dimensions that affect tolerance (for cities, see Wirth 1938 and Stouffer 1963; for region, see

Nunn, Crockett and Williams 1978 and Weakliem and Biggert 1999). These cultural differences are reflected in the tolerance of residents, regardless of their individual characteristics. Even if two places were to have identical populations, they could have different average levels of tolerance as a result of their specific cultural characteristics. Subcultural explanations often either imply or directly state that these cultural factors are not reducible to specific empirical characteristics of the place. As a result, any spatial variation in tolerance not explained by compositional effects has been attributed to general socio-historical cultural factors rather than specific place-level demographic measures.

----- Figure 1. Conceptualizations of Spatial Variation in Tolerance-----

We expand upon the existing compositional and subcultural conceptualizations by introducing a *demographic explanation* as an alternative contextual effect on individual tolerance (Figure 1, lower panel). We propose that the demographic characteristics of a place (such as the proportion of a population with a college degree) may have contextual effects on individuals' levels of tolerance. While the demographic measures are simply an aggregation of the individual-level characteristics that are included in the compositional explanation, we believe that the characteristics of the community taken as a whole may have a distinct effect on individual levels of tolerance. Just as the compositional and subcultural explanations are not mutually exclusive, the demographic explanation is not necessarily exclusive of the other two explanations. It is possible that all three factors contribute to spatial variations in tolerance.¹

CONTEXTUAL EFFECTS ON INDIVIDUALS' ATTITUDES

As previously noted, there are no studies to date that have examined specific contextual explanations of Americans' willingness to extend civil liberties. However, recent multilevel studies have found evidence in support of contextual explanations when examining spatial variations in racial

prejudice (Taylor 1998), in attitudes towards gender equality (Moore and Vanneman 2003), and in support for the death penalty (Baumer, Messner and Rosenfeld 2003).

Taylor (1998) conducted a multilevel analysis linking 1990 General Social Survey and Census information and found a significant contextual effect of percent Black residents in an area on whites' racial attitudes even after controlling for compositional effects. Taylor also found percent Black to be a stronger contextual indicator of whites' racial attitudes than region (measured as South/non-South), but warned that racial composition cannot easily be disentangled from Southern history and culture. Thus, she concluded that the subcultural hypothesis should not be completely disregarded.

Moore and Vanneman (2003) merged General Social Survey data with Census and National Survey of Religious Identification information to examine the state-level effects of proportion fundamentalist on individuals' gender attitudes. They too found evidence of contextual effects. Individuals residing in states with higher proportions of fundamentalists expressed significantly more conservative gender attitudes even after controlling for an array of individual-level characteristics. Like Taylor (1998), they found that the Southern region effect became non-significant with the addition of other contextual indicators.

In a study of spatial variation of support for the death penalty, Baumer, Messner, and Rosenfeld (2003) found that contextual homicide rates, racial composition, and political climate all had significant effects on the likelihood of supporting the death penalty, even after controlling for individual characteristics. As in the other studies cited here, regional variations that existed after controlling for compositional effects became non-significant with the addition of other contextual variables.

VARIABLES ASSOCIATED WITH DECREASED TOLERANCE

Researchers have argued that the **South**/non-South regional gap in tolerance is due to social and cultural factors not accounted for by demographic variation (Nunn, Crockett and Williams 1978; Weakliem and Biggert 1999). Reed (1983) claims that Southerners behave similarly to ethnic groups, retaining a regional consciousness and traditional value orientation that is protectionist in nature. In their

replication of Stouffer's (1963) groundbreaking tolerance research, Nunn, Crockett and Williams (1978:105) associated the South with "an insularity of mind that is slow to change, actively belligerent toward the new, and openly intolerant toward a diversity of viewpoints." Southerners may have stronger resistance to the cosmopolitan "marketplace of ideas" that has moved the rest of the nation towards greater tolerance levels (Weakliem and Biggert 1999). We test the strength of this subcultural explanation of tolerance by incorporating several variables measuring both the compositional and demographic characteristics of a place.

Religious denominations not only generate worldviews that shape their members' political tolerance attitudes both from the pulpit and through informal interactions among like-minded congregationists (Billings and Scott 1994), but they may also have effects on the larger community (i.e., contextual effects). Religious leaders directly and indirectly affect norms, political priorities and decisions, and the overall culture of a community. Therefore, we may expect that the influence of religious institutions would diffuse beyond the membership of the church, synagogue, or mosque. Previous research has documented the individual-level effects of religious affiliation, attendance, and theological conservatism on levels of tolerance (Beatty and Walter 1984; Ellison and Musick 1993; Nunn, Crockett and Williams 1978; Stouffer 1963). On average, Jews score highest on measures of tolerance, while Protestants – and particularly, fundamentalist/evangelical Protestants – score lowest. Religious attendance has a negative effect on tolerance and this effect is strongest for those who are members of less tolerant denominations (e.g., conservative and fundamentalist Protestants) (Beatty and Walter 1984). We include religious affiliation and attendance as compositional controls in our model and the distribution of religious affiliations in the area to test for demographic effects.

Research consistently reveals a negative correlation between **age** and tolerance (Bobo and Licari 1989; McCutcheon 1985; Stouffer 1963), but Wilson (1994) showed that this relationship is generally due to differences in tolerance across cohorts, rather than a change in attitudes as people age. For most of the twentieth century, each new cohort has been born into a generally more liberal and tolerant atmosphere

and in turn, has expressed greater levels of tolerance. We include age at the individual level and percent of the population over age 65 at the contextual level in our study.

Evidence about the relationship between **racial/ethnic group** identification and levels of tolerance has been somewhat less consistent. Bobo and Licari (1989) found only those Blacks who already held negative attitudes towards militarists were significantly less tolerant than whites. They found no significant differences across race for any other target groups. Ellison and Musick (1993) found Blacks to be significantly less tolerant of both racists and militarists but not significantly different from whites regarding communists, atheists or homosexuals. Wilson (1991) found that minorities expressed significantly lower tolerance levels than whites for both left- and right-wing groups.² Stouffer (1963) found whites to be more tolerant than nonwhites but these differences were minimal after taking rural/urban residence and education into account. We include a four-category race/ethnicity variable at the individual level and a racial diversity index to capture any compositional and demographic contextual effects, respectively.

VARIABLES ASSOCIATED WITH INCREASED TOLERANCE

Research has consistently shown that **urban** areas have higher average tolerance levels than rural areas in the United States. Both Wirth (1938) and Stouffer (1963) argued that the densely populated heterogeneous environments found in many cities increase opportunities for individuals to interact with diverse groups in a variety of social relationships. This in turn leads to an increased willingness to tolerate differences and to develop a shared “live and let live” mentality. As with the Southern effect, the urban effect is typically considered to be a subcultural phenomenon, rather than one that can be explained through compositional and/or demographic factors. In this study, we identify other compositional and contextual variables that may have a positive effect on tolerance in order to test the subcultural hypothesis regarding cities.

The positive relationship between an individual’s **education** level and tolerance is one of the most consistently documented results in the empirical research (Bobo and Licari 1989; Davis 1975;

Dynes 1967; Hyman and Wright 1979; McCutcheon 1985; Stouffer 1963; Weil 1985; Williams, Nunn and St. Peter 1976). Stouffer (1963:127) discussed education's role in providing a setting where one is exposed to values and ideas that may differ from those learned in the home, thus creating a tolerance-producing situation. As education increases, so does one's knowledge of diverse cultures, openness to new ideas, and willingness to risk uncertainty and ambiguity. The resulting cognitive sophistication leads to consistency in applying a democratic ideology and general norms of tolerance to disliked groups (Bobo and Licari 1989). We include individuals' years of school completed as a compositional control and percent of the population with a college degree as a demographic measure in our analysis.

Geographic mobility, or **migration**, has been cited as a primary contributor to regional and urban diversity as well as to increased exposure to diversity at the individual level (Stouffer 1963; Williams, Nunn and St. Peter 1976; Wilson 1986, 1991). As individuals emigrate from less tolerant areas to more tolerant areas, they become exposed to, and are likely to, adopt the more tolerant attitudes in their new location. Additionally, we might expect that immigrants to less tolerant communities will contribute to the diffusion of tolerance by exposing the residents of these areas to more tolerant attitudes.³ Wilson (1991) found that even migrants between communities of the same size experienced increases in their tolerance levels, perhaps in response to the "culture shock" that Stouffer (1963) claimed could occur when individuals are exposed to previously unknown ways of life. Individuals native to an area are exposed to an increased diversity of ideas and attitudes as the immigrant (both international and domestic) population increases, which should lead to increased tolerance levels. Accordingly, we include in our multilevel analysis an individual-level control for residential mobility as well as a contextual measure for the percentage of recent migrants to the area.

Data and Methods

Tolerance can be defined as the willingness to apply universalistic norms of treatment and rights towards people with viewpoints different from or even repugnant to one's own attitudes (Stouffer 1963).

We apply the most commonly used metric within the tolerance literature: the willingness to extend civil liberties to persons with group associations that are either on the left or the right of the political spectrum (Abrahamson and Carter 1984; Dynes 1967; McCutcheon 1985; Stouffer 1963; Williams, Nunn and Peter 1976; Wilson 1991, 1994).⁴

In this study, we use individual-level data from the 1976-2000 waves of the NORC General Social Surveys (GSS), a nationwide survey of non-institutionalized English-speaking adults in the United States. *Tolerance* is measured using a 15-item battery that asks if the respondent would be willing to allow members of two politically “right” non-normative groups (racists and militarists) and three politically “left” non-normative groups (communists, atheists, and homosexuals) to make a public speech, teach in a local college, and/or have an authored book in the public library. The total number of affirmative answers to the fifteen scenarios is the respondent’s score on the tolerance scale. The items in the scale are highly correlated, with an overall Cronbach’s alpha of .92 and bivariate associations (Kendall’s tau-b) among the fifteen items ranging from .25 to .68, with all correlations significant at $p < .001$.

To control for compositional effects, we included a set of individual-level controls that have been used in previous studies of tolerance. They are birth year, gender, race/ethnicity, years of school completed, family income (logged), religious affiliation⁵, frequency of church attendance, and residential mobility (currently living in a different city/town/county than when age 16). In addition, the year of survey is included to control for national trends in tolerance across survey years. After the deletion of cases with missing data, there are 16,512 respondents in the data set. Descriptive statistics for the individual-level variables are presented in the upper panel of the appendix table.

The sampling frame of the GSS uses primary sampling units (PSUs), which are either metropolitan areas (MAs) or rural counties (see Davis, Smith, and Marsden 2001 for further details on the sampling method of the GSS). In total, 179 distinct PSUs were used over the surveys included in this study.⁶ Slightly more than half (58%) of the PSUs are metropolitan areas and more than one-third of the PSUs (39%) are located in the South. Forty-three of the PSUs are Southern rural counties (24%).

The PSU data set includes the following variables: region (South/non-South)⁷, a dummy variable indicating whether the PSU is a metropolitan area or a county, proportion of the population that has completed college, an index of racial diversity⁸, proportion of the population that has moved into the MA or county in the past five years, and proportion of the population that is over age 65. All of these variables were calculated from 1990 Census data. Variables measuring the religious composition of the PSU were calculated from the GSS data. The descriptive statistics for PSU-level variables may be found in the lower panel of the appendix table.

In the analysis, we used hierarchical linear modeling, which is the most appropriate regression method for simultaneously estimating micro-level and contextual-level models (Bryk and Raudenbush 2002). This two-level hierarchical model corrects for underestimates in the standard errors of PSU-level variables that can occur if individual-level data is simply appended with contextual variables. The method also adjusts for the correlated error among individuals within the same PSU and uses the appropriate degrees of freedom for the PSU-level hypotheses.

The models were run in a stepwise manner, starting with a model that includes only the contextual variables for region and urban/rural area. Individual-level controls were added to the second model to determine whether the effects of region and urban status were compositional in nature. The other PSU-level variables were added in the third model, allowing for the testing of the demographic explanation. In a supplemental stage, we included interactions between the contextual variables and their corresponding individual-level variables to see if the effects of context are equal across different types of individuals in a PSU (for example, whether the percentage of college graduates in a county or MA has an equal effect on tolerance for people with and without college degrees).

Results

Figure 2 shows the distribution of the individually weighted means of the tolerance scores across the PSUs in the sample. There is a wide range of average tolerance scores across PSUs, from a low of

3.14 (Lincoln County, AR) to a high of 13.34 (Austin-San Marcos, TX). The mean average tolerance score across the PSUs is 8.74, with a standard deviation of 1.93.

----- Figure 2. Distribution of Mean Tolerance Scores Across 179 PSUs-----

An unconditional two-level hierarchical model shows that this variation across the PSUs is statistically significant ($\tau_{00} = 3.083$; $\chi^2 = 2123$; $p < .001$). The intraclass correlation coefficient also reveals that a substantial amount of the variation in the level of tolerance across individuals clusters at the PSU level (Snijders and Bosker 1999). The total variance of the random effects at the individual (r_{ij}) and PSU (τ_{00}) levels in the unconditional model is 25.124, which means that 12.3% ($=3.083/25.124$) of the variation in the observed scores can be attributed to the PSU level. In other words, the data show that tolerance is not determined exclusively at the individual level. However, multivariate analysis is needed to partition out the compositional, contextual demographic, and subcultural components of this spatial variance.

----- Table 1: Compositional and Contextual Effects on Tolerance-----

Table 1 presents the results of the multilevel models that were run in the analysis. The results in Model 1, which includes only the contextual measures of South/non-South and urban/rural, are consistent with previous research. The mean tolerance levels of Southern PSUs are significantly lower than the mean tolerance levels of non-Southern PSUs and the mean tolerance level of urban areas is significantly higher than the mean tolerance of rural areas. The inclusion of the variables explains nearly 40% of the variance across PSUs, as τ_{00} is reduced from 3.083 to 1.898.

Model 2 adds the individual-level controls to the model, in order to test the compositional explanation. If the effects of region and urban status are compositional, the PSU-level coefficients in Model 1 will become non-significant with the addition of the controls in Model 2. In general, the effects

of the individual-level variables are consistent with previous research. Additional years of education, more income, a later birth cohort, and migration to a new MA or county have positive effects on tolerance at the individual level. More frequent attendance at religious services and affiliation with an evangelical or Black Protestant denomination have negative effects on individual tolerance (compared to Catholic affiliation).⁹ Jews and individuals who reported no religious affiliation had higher levels of tolerance than did members of other religious groups. Whites have higher levels of tolerance on average than do nonwhites, with Hispanics reporting the lowest levels of tolerance, followed by Asians and then Blacks.¹⁰ Only gender and the year of the survey did not have a significant effect.

More relevant to the study at hand is an examination of the compositional dimension of the regional and urban/rural gaps in tolerance. The magnitude of the coefficients for both region and urban status are substantially smaller in Model 2 than they are in Model 1, but they remain statistically significant at $p < .001$. Slightly more than half of the PSU-level effects observed in Model 1 are accounted for by compositional effects, and the PSU-level variance is also reduced substantially (from 1.898 to .418). Nevertheless, the chi-square value of τ_{00} (493) is still statistically significant at $p < .001$, which indicates that the individual-level scores remain substantially correlated by PSU even after controlling for compositional effects.

Model 3 adds the remainder of the contextual variables to determine whether the Southern and urban effects can be explained by the demographic characteristics of these areas. The addition of the contextual demographic variables reduces the South coefficient by approximately two-thirds (from -.688 to -.254) and it becomes statistically non-significant. This suggests that the Southern effect can be explained by the combination of compositional and demographic contextual factors. Of the original effect of 1.547 points on the tolerance scale, 55.5% was explained by compositional factors in Model 2 and 28.1% was explained by the contextual factors in Model 3. Between the two sets of factors, the Southern region effect was reduced to statistical non-significance, which indicates that once the demographic and compositional factors are accounted for, the subcultural effect is minimal.

Additional stepwise analysis (Table 2) indicates that the main contextual reduction in the Southern coefficient in Model 3 results from the inclusion of the religion variables. Just as the individual control for membership in an evangelical Protestant church has a negative effect on tolerance, living in an area with a higher proportion of evangelical Protestants also has a negative effect on individual tolerance levels. The lower levels of tolerance in the South seem to be primarily a “Bible Belt” effect (Ellison and Musick 1993; Kosmin and Lachman 1993).

----- Table 2: Stepwise Decomposition of South and Urban Coefficients-----

Similarly, the urban effect is reduced to non-significance by the addition of the demographic explanatory variables in Model 3 (Table 1). With the inclusion of these variables, the difference between MAs and rural counties in predicted mean tolerance is virtually zero. Once again, we can account for the initial difference between urban and rural areas through a combination of compositional and contextual factors. The compositional factors accounted for 50.2% of the original effect, while the demographic contextual factors explained a further 42.1%. The non-significance of the remaining effect suggests that there is very little subcultural difference between urban and rural areas in terms of tolerance.

Further stepwise analysis (Table 2) reveals that the contextual reduction of the urban coefficient to non-significance is due to the inclusion of the PSU-level education variable. Therefore, we conclude that the urban/rural gap in tolerance is due to the systematic differences between urban and rural areas in the percentage of residents with college degrees. Were urban areas and rural areas to have equal shares of college graduates, we would not expect to find differences in their mean levels of tolerance, all other factors being equal.¹¹

Our multilevel analysis supports two of the three main explanations for spatial variation in levels of tolerance: the compositional and the demographic. We find that both the Southern/non-Southern and urban/rural gaps in mean tolerance levels can be explained by a combination of the differences in individual characteristics across the two population groups and the demographic characteristics that vary

across the areas. Specifically, the Southern “effect” appears to be a reflection of how the religious composition of the South varies from the rest of the nation, while the urban “effect” is due to the greater concentration of college graduates in urban areas. The one explanation that we do not find support for is the subcultural account. There do not appear to be systematic differences in tolerance across regional or urban/rural lines that exist above and beyond the effects of individual and contextual demographic characteristics. This is not to say that cultural differences do not exist between Southern and non-Southern or urban and rural regions; rather, that the observed differences in tolerance between these areas can be traced back to differences in their populations.

INTERACTION EFFECTS: ARE ALL PEOPLE AFFECTED EQUALLY?

A second question regarding the contextual effects model is whether the observed contextual effects are evenly distributed across all types of individuals or are stronger for certain types of people than others. For example, is the effect of being in an area with many college graduates the same for individuals with a college degree and those without a degree? Are the tolerance levels of evangelical Protestants more strongly affected by the proportion of evangelicals in an area than the tolerance levels of non-evangelicals?

General theoretical models can be posited to support either idea. If beliefs and attitudes spread primarily through small-scale interactions such as informal interactions and small group activities, we would expect that the effects of context would vary across groups. Individuals are more likely to have these personal interactions with people who are like them, so the pro-tolerance effects of college graduates may be stronger on other college graduates (to whom they have a social bond and similar intellectual framework) than on non-graduates (who may be dismissive of graduates’ ideas).

On the other hand, the means of transmission of contextual effects may operate at a macrosocial level that does not have varying effects based on individual characteristics. For example, if city or county laws are a means of transmission of diffusion effects, both residents with and without college degrees are subject to the provisions (and the effects) of a civil rights law. Were this to be the case, we would see

little or no differences in the effects of context on individual tolerance across different groups in the community.

To examine this issue, we tested whether the contextual effects were consistent across people with varying levels of the corresponding individual characteristics. This was done by modeling the PSU-level coefficients with the corresponding individual-level variables in the full model.¹² The results (Table 3) show that the effect of being in a community with more college graduates does not vary based on the individual's level of education. Highly educated and less educated individuals' tolerance levels are similarly affected by the percentage of college graduates.

This suggests that the modes of transmission of pro-tolerance attitudes that result from greater concentrations of college graduates is achieved through institutional and macrosocial means, as opposed to the face-to-face interactions between similar individuals. It may be that areas with more college graduates are more likely to pass anti-discrimination laws (and may also be more likely to see that they are enforced). These areas may have stronger norms of cultural acceptance that lead both the college educated and those without degrees to be accepting of non-normative individuals and their ideas. Institutions, such as local governments, schools, cultural centers, and businesses, may be more likely to create and support pro-tolerance activities when the population that they serve contains a higher proportion of individuals who are likely to value diversity. And even though these public activities may be set up in response to the demands of the intellectual elite, their effects are likely to be felt throughout the community.

-----Table 3: Main Effects and Interactions-----

A different pattern emerges when looking at the interaction between individual membership in an evangelical Protestant church and the percentage of evangelical Protestants in the PSU. The statistically significant interaction term in Table 3 indicates that the effects of being in an area with a high proportion of evangelical Protestants is greater for those who are themselves evangelical. Figure 3 shows that the

predicted tolerance score declines for all individuals as the share of evangelical Protestants increases in the PSU but that the slope is steeper for members than for non-members. In a PSU where 10% of the population is evangelical Protestant (approximately one standard deviation below the mean), the expected gap between members and non-members is 1.07 points. In a PSU where half of the population is evangelical (approximately one standard deviation above the mean), the expected difference is 1.57 points on the tolerance scale.

A larger population of evangelicals means that they are more likely to become part of a critical mass in local politics, school boards, and media, but these results suggest that the contextual effects of religion are somewhat different from that of education. The greater concentration of evangelicals will have an impact on local laws, curriculum, news broadcasts and stories, which could explain the lower average tolerance for both members and non-members in communities with more evangelical Protestants. However, the greater effect for those who belong to the religious group suggests that there is also an interpersonal dimension. Evangelicals may have their more restrictive and isolationist beliefs reinforced in religious services or other exclusive activities in which members interact with other members. The effect of these settings on tolerance levels complements the broader social context and leads to the larger negative effect of evangelical Protestantism in the community for members of the movement. At the same time, non-evangelicals might also be affected by interactions with like-minded individuals in their religious (or secular) settings. They may hear more liberal interpretations of Judeo-Christian traditions from their religious leaders as a response to the evangelical messages in the community. This may lead them to prioritize civil liberties and make them more resistant to evangelical messages that are part of the public discourse in the community.

-----Figure 3. Predicted Tolerance Scores for Evangelical Protestants and non-Evangelicals by Percentage of Evangelical Protestants in PSU-----

Discussion

Since the 1960s, a long research program has documented the individual characteristics that affect levels of tolerance for non-normative groups. While it has often been claimed that context matters as well, empirical research on this aspect has not been extensive. In this study, we have more formally modeled the contextual dimension of tolerance by using multilevel modeling to properly account for the effects of context. In addition, we have sought to determine whether the somewhat vaguely defined subcultural contextual effects of Southern region and urban location are fundamental or simply proxies for more specific contextual-level demographic characteristics that affect individual's tolerance levels.

The role of individual characteristics in generating tolerance is substantial, but our analysis has shown that the effect of demographic contextual conditions also must be taken into account. There is systematic variation in tolerance levels across communities. Some of this variation is due to the varying characteristics of individuals across communities in the United States (compositional effects), but the explanatory power of models of tolerance is increased by the inclusion of demographic characteristics (contextual effects). In this study, we have shown that living in an area with more college graduates has positive effects on individual tolerance, while living in areas with a greater proportion of evangelical Protestants has negative effects on tolerance. The contextual education effect explains the previously observed urban/rural difference in tolerance and religious context accounts for the Southern effect.

While our results do not find that there is a significant subcultural dimension to spatial variation in tolerance, this does not mean that we are dismissing the role that culture plays in determining an individual's levels of tolerance. Tolerance is an element of culture and there is a dialectical relationship between culture and demography. Places with large percentages of college graduates are likely to be culturally different from places with fewer college graduates. Similarly, Southern communities are culturally distinct as a result of their unique religious demographics. At the same time, the culture of a community also influences the composition of the population. A place that is known as an intellectual center (e.g., Boston, San Francisco, Washington DC) is likely to attract more college graduates and also is

likely to have more of its residents pursue higher education. The “Bible Belt” of the South is a cultural description that has real demographic implications. Individuals who are not evangelical are less likely to move to these areas, while those who do share these beliefs are more likely to do so. In stating that the subcultural explanation is not supported by our data, we are not making the claim that cultural differences do not exist or that they do not affect individual levels of tolerance. Rather, our conclusion is that the less tolerant cultures of Southern and rural communities can be explained in large part by the demographic and compositional characteristics of these places. Following Molotch, Freudenburg, and Paulsen (2000), we conclude that place matters, and seek to explain how it does (see also Florida 2002).

Although these data do not allow us to test theories about the mechanisms through which these contextual effects operate on individuals’ tolerance levels, our results suggest that the two factors operate somewhat differently. The liberalizing effects of education are consistent across all members of a community, which may indicate that the effect is transmitted primarily through macrosocial means. The contextual education effect may operate through institutions, as positions of authority and influence in the United States tend to be occupied by the educational elite and also tend to be more responsive to the needs and desires of that elite. Where individuals in these positions (particularly at the local levels) are more likely to be highly educated, the more tolerant values of this population may be diffused through such mechanisms as policy decisions, judicial decisions/precedents, school curricula, and news coverage.

Evangelical Protestant beliefs may also influence community attitudes through these macrosocial processes, but we also find evidence that suggests a complementary microsocial process at work. Members of evangelical churches are more strongly affected by the religious context of the community than are other residents. This may indicate that in-group processes complement the more general diffusion of less tolerant beliefs in the community.

While we have selected the most commonly used metric in the tolerance literature, two critiques of the measure have emerged. First, some have argued that any measure of tolerance or the willingness to extend civil rights to a group ought to ensure that the group is disliked by the respondent (Sullivan, Piereson and Marcus 1982). A willingness to extend civil liberties to a group which one favors is not

tolerance at all. However, Bobo and Licari (1989) did not find that how individuals feel towards a group affects their willingness to provide them civil liberties. In this study, we have used the same dependent variable as Bobo and Licari and therefore elected not to subsample our data according to target group sensibilities.

Second, the non-normative groups identified in this study reflect a political landscape that is nearly a half-century old. Updated target groups, such as religious fundamentalists and feminists, might provide a better measure of tolerance attitudes that shift due to both cohort and historical effects. For example, communists may not be seen as a salient threat since the end of the Cold War, but granting the right of religious fundamentalists (of any religion) to speak or publish a book constitutes a current test of tolerance. Similarly, feminists continue to elicit derogatory labels, such as “feminazis,” from popular conservative commentators. There is great value in the historical continuity of these data, but the development of a more contemporary list of “threats” to society would help us to determine whether the documented changes in tolerance are a reflection of changing attitudes or changing threats.

Conclusion

While the long-term trend in American society has been one of increasing tolerance, this does not mean that all Americans have come to subscribe to the belief that all members of society should be guaranteed basic civil liberties. Many of the major political debates of the past five years – the operations of the Department of Homeland Security, the treatment of prisoners both in terrorism and non-terrorism related cases, immigration policy, same-sex marriage – have at their core questions of tolerance and civil rights. The intensity and duration of these debates reveal a continued willingness of some Americans to restrict certain populations’ civil rights.

Intolerance may also have substantial economic implications. In his work on economic development, Richard Florida (2003) cites tolerance as one of the “three Ts” that cities will need to be successful in the 21st century (talent and technology are the other two). He argues that cities will need to

be accommodating of the “creative class” that is composed of generally non-traditional (in their ethnicity, beliefs, sexuality, etc.) individuals in order to generate the innovations that will be the root of prosperity in the next century.

At the broadest level, tolerance is a reflection of the degree of equality and justice that a society bestows upon its members and in particular, its minority groups who are the most likely to be subject to the harmful expressions of intolerance. In this paper, we have shown that the educational and religious context of American communities has a direct effect on the willingness of its members to extend civil rights to controversial groups. As the demography of American communities continues to change over time, we can also expect changes in the tolerance expressed by their residents.

Endnotes

¹ There is a dialectical relationship between the subcultural dimension and the demographic dimension. The culture of a place is influenced by its demographic composition and the demography of a place is shaped by its culture. This point will be expanded upon in the discussion section of this paper.

² Curiously, Bobo and Licari, Ellison and Musick, and Wilson all used the General Social Survey for their studies, albeit different samples of years. The two studies that found no significant results only used single years of data (1984 and 1988, respectively), while the Wilson study used data from 1976 to 1989.

³ It is also possible that the effect will work in the opposite direction and migrants to less tolerant communities will themselves become less tolerant.

⁴ Sullivan, Piereson and Marcus (1982) argue that it is important to include groups from both the right and the left of the political spectrum in order to capture populations that both liberals and conservatives would oppose. Tolerance has also been measured as attitudes towards euthanasia, prohibition of alcoholic beverage and allowing epileptics into the workplace (Abrahamson and Carter 1984) as well as sexual nonconformity (Stephan and McMullin 1982). Individuals' attitudes towards interracial marriage, residential segregation and school integration have also been used as indicators of racial tolerance (Wilson 1986; Tuch 1987).

⁵ The data were recoded using the reclassification system developed by Steensland et al. (2000). In contrast to the GSS system of classifying Protestant denominations as fundamentalist, moderate, or liberal, this approach divides Protestantism into evangelical, mainline and Black groupings.

⁶ The PSU samples were revised in 1983 and 1993. In some cases, PSUs were repeated across different sampling frames. In these instances, the PSU was only counted once.

⁷ In contrast to the Census definition of Southern region that includes border states such as Delaware and Maryland, we use a "Confederate South" definition that includes Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. We would expect this definition of the South to lend greater support of any existing regional subculture effects on tolerance.

⁸ The diversity index is calculated by summing the squares of the percentages of each racial/ethnic group in the area and then subtracting the total from one. It was then multiplied by 100 to yield a scale that ranges from 0 (all residents of the PSU are of one racial/ethnic group) to $100 - (100/n)$, where n is the number of racial groups in the PSU. In this instance, five racial/ethnic groups were identified (non-Hispanic white, non-Hispanic Black, Hispanic, non-Hispanic Asian, and non-Hispanic Native American), so the maximum possible value for the diversity index was 80.

⁹ Gay and Ellison (1993) explore the significantly lower levels of tolerance demonstrated by Black Protestants in some detail. Given our focus on contextual effects on tolerance, we choose not to expand on this finding at the individual-level but recognize the need for further theoretical and empirical examination of this relationship.

¹⁰ In order to examine whether the race effect on tolerance was due to the presence of questions about racism, we ran the models both with and without the three questions on racists. The results were not affected substantially by the inclusion of these questions (results available upon request).

¹¹ Similar results are found when the dependent variable is separated into tolerance of leftist (atheists, homosexuals, communists) and rightist (militarists and racists) groups. The only difference at the contextual level is that the effect of percent new residents is statistically significant in the model for tolerance of leftist groups (results available upon request).

¹² The interactions were calculated by replacing the original Level 2 equations ($\beta_q = \gamma_{q0}$) with equations of the form $\beta_q = \gamma_{q0} + \gamma_{q1}Z_q$, where Z_q is the state-level variable that corresponds to the individual-level variable X_q in the level 1 equation.

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Table 1: Compositional and Contextual Effects on Tolerance

		Model 1	Model 2	Model 3
	<u>Individual-level</u>			
Intercept	Intercept2	8.542 ***	9.128 ***	9.317 ***
	South	-1.547 ***	-.688 ***	-.254
	Metropolitan area	1.526 ***	.760 ***	.118
	Pct College Graduates			.053 **
	Pct Evangelical Protestant			-.016 **
	Pct Mainline Protestant			-.013
	Pct Black Protestant			-.016
	Pct Jewish			-.049
	Pct Other Affiliation			-.001
	Pct No Affiliation			.010
	Pct Over 65 Years Old			-.013
	Pct New Residents			.017
	Racial Diversity Index			.003
Year			-.007	-.009
Male			.056	.059
Years of Education			.505 ***	.501 ***
Family Income (log)			.327 ***	.327 ***
Birth Year			.059 ***	.059 ***
Different MA/County than Age 16			.463 ***	.427 ***
Race/Ethnicity (White is reference group)				
	Black		-.499 *	-.503 *
	Hispanic		-1.136 ***	-1.189 ***
	Asian		-.836 **	-.869 **
Religious Attendance			-.233 ***	-.230 ***
Religion (Catholic is reference group)				
	Evangelical Protestant		-1.422 ***	-1.368 ***
	Mainline Protestant		-.154	-.118
	Black Protestant		-.617 **	-.560 **
	Jewish		.371 *	.386 *
	Other affiliation		.147	.132
	No affiliation		.853 ***	.850 ***
PSU Variance (tau)		1.898	.418	.268
χ^2		1163 ***	493 ***	364 ***

*p < .05 **p < .01 ***p < .001 (two-tailed test)

Table 2: Stepwise Decomposition of South and Urban Coefficients

Model	South Coefficient	Urban Coefficient
Model 2	-.688***	.760***
Model 2 + Education Control	-.571***	-.199
Model 2 + Religion Controls	-.160	.520***
Model 3	-.254	.118

*** p < .001 (two-tailed test)

Table 3: Main Effects and Interactions

Variable	Individual effect	PSU-level effect	PSU*Individual Interaction
Education	.506***	.049**	-.002
Evangelical Protestant	-1.333***	-.012*	-.013*

Note: Model includes all other variables in Table 1, Model 3.

*p < .05 **p < .01 ***p < .001 (two-tailed test)

Previous:



Current:

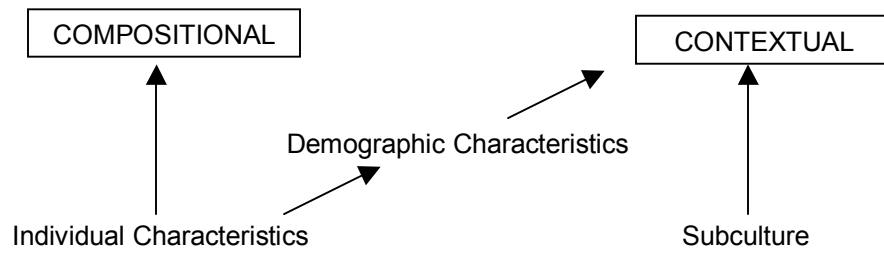


Figure 1. Conceptualizations of Spatial Variation in Tolerance

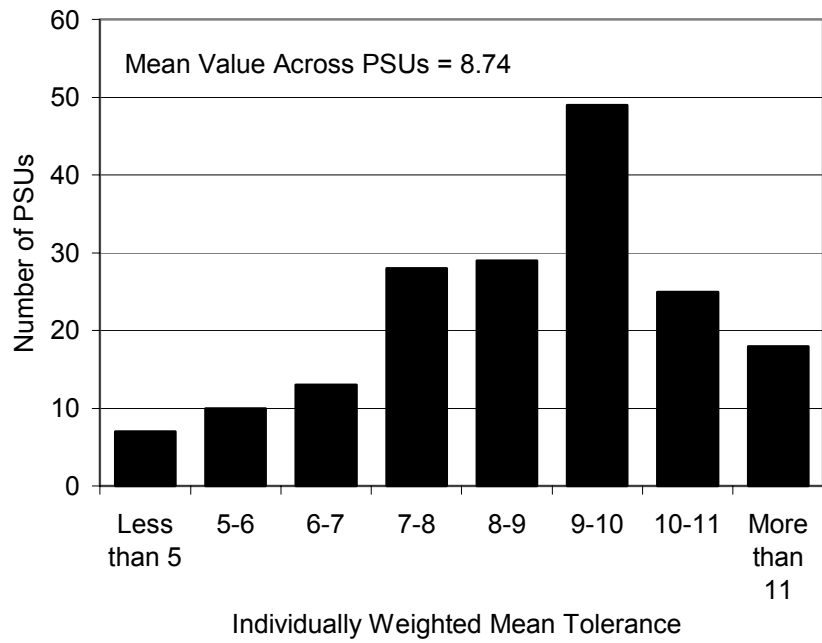


Figure 2. Distribution of Mean Tolerance Scores Across 179 PSUs

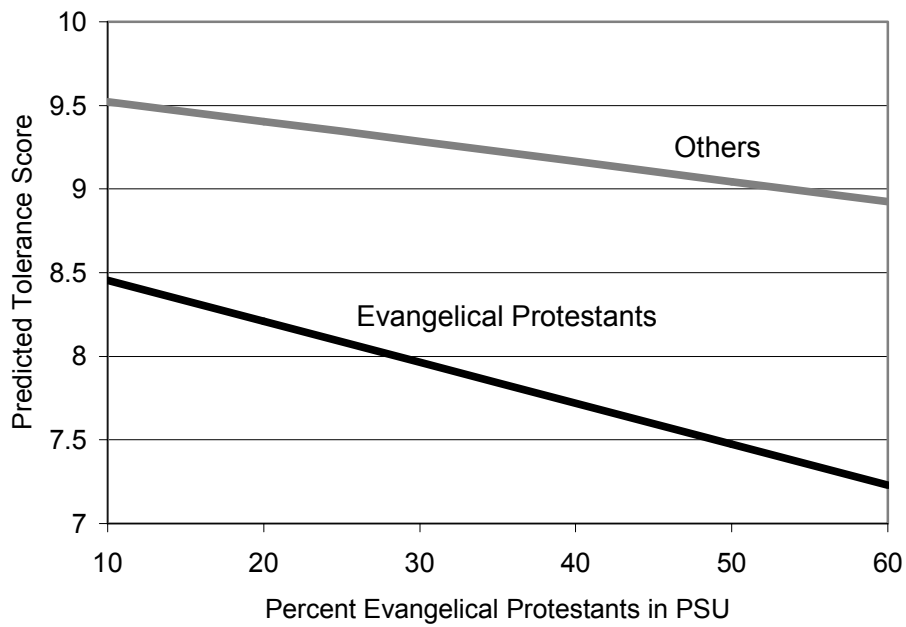


Figure 3. Predicted Tolerance Scores for Evangelical Protestants and non-Evangelicals by Percentage of Evangelical Protestants in PSU

Appendix Table A: Descriptive Variables

Variable	Mean	St Dev	Minimum	Maximum
Individuals (N = 16,512)				
Tolerance score	9.38	4.94	0	15
Year of survey	1988.15	15.62	1976	2000
Years of education	12.88	3.04	0	20
Male	.46		0	1
Frequency of religious attendance	3.90	2.66	0	8
Family income (log)	10.24	1.01	5.97	12.16
Birth year	1944.30	17.74	1887	1982
White	.81		0	1
Black	.14		0	1
Hispanic	.03		0	1
Asian	.02		0	1
Different PSU compared to age 16	.59		0	1
Evangelical Protestant	.26		0	1
Mainline Protestant	.23		0	1
Black Protestant	.09		0	1
Other religion	.05		0	1
Catholic	.25		0	1
Jewish	.02		0	1
No religion	.09		0	1
PSUs (N = 179)				
South	.39		0	1
Metropolitan area	.58		0	1
Percent over 65 years old	17.39	4.63	4.88	37.10
Percent with college degree	35.29	14.41	8.86	65.14
Percent new residents	14.49	8.21	3.31	60.62
Diversity index	27.71	17.40	1.66	66.24
Percent evangelical Protestant	31.03	18.40	0	94.56
Percent mainline Protestant	24.14	13.17	0	71.54
Percent Black Protestant	9.67	17.08	0	100
Percent Catholic	22.31	16.95	0	78.57
Percent Jewish	.88	1.65	0	12.76
Percent other religion	3.75	3.70	0	27.68
Percent no religion	8.21	6.23	0	35.64