Community Influences on White Racial Attitudes: What Matters and Why?

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ABSTRACT

Influential researchers recently argued that low socioeconomic status (SES) among local whites is the most potent contextual influence on white attitudes, purportedly indexing "stress-inducing" deprivations and hardships in whites' own lives that lead them to disparage blacks. The present paper re-assesses this "scapegoating" claim, using data from 1998-2002 General Social Surveys linked to 2000 census information about communities. Across many dimensions of racial attitudes, there is pronounced influence of both local racial proportions and college completion rates among white residents. However, the economic dimension of SES exerts negligible influence on white racial attitudes.

INTRODUCTION

If community context influences the racial attitudes of white Americans, what dimensions of the local environment are the most potent, and why? Although these important questions have attracted substantial attention in social science, existing studies raise as many questions as they answer.

Backdrop: The impact of local race composition.

Theory and research have pointed to local race composition as a critical influence on white racial attitudes. On average, white Americans have reported greater race prejudice in localities where the black population share is high (see, for example, Fossett and Kiecolt 1989; Quillian 1996; Taylor 1998), especially outside the South (Taylor 1998). Tangible outcomes such as racial occupational inequality (Burr, Galle, and Fossett 1991), decline in white Democratic voter registration (Giles and Hertz 1994), and certainty of criminal punishment (Liska, Chamlin, and Reed 1985) have also been shown to co-vary with black population share, presumably as an outgrowth of negative white attitudes.

The proposition that white hostility may be fueled by proximity to racial minorities is not new (see Allport 1954; Williams 1947). The underlying dynamic is often assumed to be threat associated with some form of "realistic group conflict" (Levine and Campbell 1972). Economic and political rivalries were discussed by Blalock (1967), who concluded that threat/competition in each of these two spheres produced a distinctive curvilinear relationship between black numbers and white reactions. Emphasizing economic competition, Quillian (1996) used regional black population share and per capita income side by side as parallel indicators of the "perceived group threat" that he found to predict white prejudice and opposition to race-targeting. Political

struggle has been the focus of analysts such as Giles and his colleagues (Giles and Evans 1985; Giles and Hertz 1994).

Perceived threat that may mediate effects of black population numbers on white attitudes need not, however, be economic or political. Blumer (1958) portrays white prejudice as a "sense of group position" that becomes virulent prejudice when the dominant position is threatened. The dynamic Blumer describes is often referenced in discussions of economic and political competition, but can be interpreted as more encompassing. Analysts in the Tajfel tradition describe in-group identification and out-group derogation as serving psychological needs for social inclusion and distinctiveness (Tajfel and Turner 1986; Brewer 1991) or attempts to maintain social status and thus self esteem (see Forbes' discussion of social identity theory, 1997:32). Followers of Blumer might make a similar point, but with a sociological twist, noting that the valued sense of dominant group position is multifaceted, entailing diffuse social status along with economic and political gains.

Indeed, potentially important forms of threat are not exhausted when we add status to the economic and political spheres. Whites' sense of physical threat from minorities is emphasized in the criminal justice literature, and continuing debates about the role of non-English languages in education and public life are reminders that cultural threat may be important, whether the minority in question is African Americans or Hispanics. Citing Liska (1992) among others, Stults and Baumer note that some analysts believe the presence of minorities may lead to tightened social controls because "culturally dissimilar minority groups are perceived as a diffuse threat to the social order" (2007:510).

A Different Focus: The role of white residents' aggregate socioeconomic status (SES).

In a provocative and influential article, Oliver and Mendelberg (2000) argue that earlier analysts have gotten the story about environmental effects on racial attitudes mostly wrong. Black population share has limited influence on white attitudes, these analysts claim, largely because segregated institutions have been erected to mitigate racial competition and threat. As supporting evidence, Oliver and Mendelberg report their 1991 telephone survey findings that neither zipcode-level nor metropolitan-level proportion black seems to influence "symbolic racism;" and that racial stereotyping is similarly unaffected by zipcode-level race composition, though shown to be modestly related to black population share at the metro level. Overall, these researchers contend that contextual predictors influence policy opinions only where the specific predictor indexes competition in the arena referenced by the policy question. Thus, for example, their data did evidence a metropolitan-level impact of proportion black on whites' opinions about affirmative action in employment, purportedly because job competition exists at the metropolitan level.

The aggregate socioeconomic status (SES) of local white residents, net of individual SES, is the more powerful influence on white residents' racial attitudes, according to Oliver and Mendelberg (2000). These researchers took the percentage of local whites holding college degrees as their aggregate SES predictor, and found zipcode-level effects of this contextual education index on measures of racial attitudes.

In sociology as well as political science, the Oliver and Mendelberg (2000) paper has received widespread attention – cited to legitimate the search for contextual effects in general, even in projects where the focal environmental predictor is the factor that Oliver and Mendelberg downplayed, racial composition of the local population (for example, see Dixon 2007; McLaren

2003). Among studies that have focused on socioeconomic status as an environmental influence on racial and other attitudes, a number have followed Oliver and Mendelberg in using educational level of local residents to represent SES (see Blake 2003; Branton and Jones 2005; Marschall and Stolle 2004; Soss, Langbein, and Metelko 2003).[1]

Interpretation of aggregate SES effects.

How should environmental effects of white residents' SES be interpreted? Oliver and Mendelberg considered and rejected a list of possibilities. If low SES local environments increased whites' sense of vulnerability, then contextual white SES would interact with black population share, low SES in the white community magnifying the threat represented by local black numbers; in Oliver and Mendelberg's data such interaction was absent. If the contextual SES measure reflected the impact of unmeasured individual differences, its force should be diminished by introducing political information as a control variable; their data showed no such pattern. Social norms are in implausible mediator of the contextual SES effect, Oliver and Mendelberg contend, because residents within areas as large as zipcodes don't generally interact enough to develop norms; also, zipcode areas don't contain "far-reaching normative institutions" (2000: 585) that would generate strong norms, nor was the contextual SES effect more pronounced among longer-term residents, as a normative explanation might imply.

By elimination, Oliver and Mendelberg came to favor what others might call scapegoating theory to explain the zipcode-level contextual SES effects emphasized in their findings. "The greatest environmental determinants of racial attitudes come not from material

[1] Taking off from Oliver and Mendelberg (2000), subsequent studies by Oliver and his collaborators have incorporated Hispanic and Asian-American population shares as potential environmental predictors and have broadened the set of dependent measures examined. Also, level of analysis has moved to center stage: Both Ha and Oliver (2006) and Oliver and Wong (2003) conclude that outgroup presence in the neighborhood encourages positive attitudes, while large outgroup populations in the metropolitan area seem to have a negative influence on attitudes.

competition, social norms, or unmeasured individual characteristics, but from psychological responses of out-group aversion that are triggered by low status contexts" (2000: 586). The authors' introductory discussion paved the way for this conclusion: "Low-status settings, defined by low rates of education and employment, expose residents to a daily dose of petty crime, concentrated physical decay and social disorder…This exposure in turn leads to a constellation of negative psychological states… In settings characterized by general anxiety and fear, anti-black affect may arise because African Americans are a salient target in a racially divided society" (2000: 576).

This portrayal closely echoes Allport's (1954) description of "scapegoating." Allport notes "the escapist function of aggressiveness…(its) capacity to soften the disappointments and frustrations of life," and goes on to say: "Throughout life the same tendency persists for anger to center upon available rather than logical objects" (1954:343).

A very different interpretation is suggested if we focus not on the term "socioeconomic status," but on the aggregate SES measure actually used in much of the earlier research—the level of white residents' education—and if we consider well-educated as well as poorly-educated communities. A thoughtful and provocative interpretation of contextual education effects was spelled out by Moore and Ovadia (2006) in connection with research not on racial attitudes, but on support for civil liberties. Moore and Ovadia propose: "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." And they go on to say: "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" (2006:2215).

THE PRESENT STUDY

The central focus of this study is the influence of locality-level white SES on the racial attitudes of white residents. In particular, we seek to disentangle the influence of aggregate white education from that of aggregate white economic status in order to adjudicate between alternate interpretations of previously-observed environmental SES effects. Responding to previous researchers' interest in comparing environmental SES effects with effects of local race composition, we include racial proportions among our key predictors. And for its potential to inform interpretations of these focal contextual factors, we consider as well residential segregation.

More specifically, using 1998-2002 General Social Survey (GSS) responses linked to contextual data from the 2000 U.S. Census we ask:

1) In these data, what is the evidence that black population share in the metropolitan area or non-metro county influences white racial attitudes?

Research using 1990 GSS data showed noteworthy metropolitan-level effects of black population share (Taylor 1998). More recently, Oliver and Mendelberg (2000) reported inconsistent metropolitan-level race composition effects across their two racial attitude and three

racial policy measures. This latter research, however, used dummy variables rather than a continuous scale to index race composition and included controls—zipcode-level contextual variables and political party affiliation—that we believe may distort the assessment of metro-level predictors. An undated assessment is needed, using a continuous race composition predictor and a broad array of eight racial attitude measures.

2) What impact does the aggregate education level of whites in the metropolitan area or non-metropolitan county have on the racial attitudes of white residents?

The influential Oliver and Mendelberg article assessed the impact of contextual education only at the zipcode level, assuming that the variability of aggregate education across metropolitan areas is too small and the variability within sub-communities of metropolitan areas too great for metro-level education to be a plausible influence on racial attitudes (2000: 577). Our project tests that assumption.

3) What is the influence on whites' racial attitudes of the aggregate economic status of whites in the metropolitan area or non-metropolitan county?

We dissect white "socioeconomic status," assessing the role of economic context as well as educational context. What is the relative strength of economic and educational context when each is examined separately, and does each aspect of aggregate SES contribute to understanding white racial attitudes when both are included in multivariate analyses?

4) What role is played by residential segregation in shaping white attitudes?

Another dimension of racial context is residential segregation. Main effects of residential segregation on racial attitudes, where they have been observed, are not amenable to straightforward interpretation. Cause and effect problems rear their head: Segregated housing patterns may be strengthened by the support of racially prejudiced whites, a dynamic that would

masquerade as the beneficial attitudinal impact of integration some analysts claim to exist. And this causal dynamic could counteract evidence of the contrary proposition that *segregation* improves white attitudes by reducing threat.

Observed interaction effects involving residential segregation, however, may be more interpretable. Oliver and Mendelberg (2000), it will be recalled, explained their observed weak or null effects of black population share in terms of residential segregation, erected to counteract the threat of sizeable black local populations. This certainly implies interaction: The tendency for sizeable black populations to evoke negativity among whites should be weaker in highly segregated localities. And if effects of white socioeconomic status on racial attitudes is a matter of scapegoating in reaction to circumstances prevalent where white SES is low, or of positive civic efforts undertaken where white SES is high, those effects may be muted when residential segregation makes blacks less visible.

Why focus on White Americans' attitudes about blacks?

The need to assess outgroup attitudes among perceivers other than European Americans and for targets other than African Americans is crucially important in this increasingly multiracial society (see, for example, Taylor and Schroeder 2005). However, there are clear indications that black targets face particularly disparaging attitudes (see, for example, Bobo and Hutchings 1996; Dixon 2006). And there is powerful evidence that the impact of minority population proportions differs when the minority group is blacks rather than Hispanics or Asians (see, for example, Taylor 1998; Taylor and Aurand 2004; Dixon 2006). Furthermore, the interaction of racial context with individual interracial experience depends on which minority group is the focus (Dixon 2006). In short, negative attitudes held by whites about blacks are particularly acute, and environmental influences on those attitudes are in some ways unique.

Even as valuable research involving other perceivers and targets is pursued, there is ample reason to ask specifically about white attitudes toward blacks.

Why focus on metropolitan areas and non-metropolitan counties as contextual units?

There is certainly good reason to study environmental impacts of smaller units, and to compare results for localities varying in scale, as some researchers have done (e.g. Oliver and Wong 2003; and Ha and Oliver 2006). However, larger contextual units do influence attitudes in ways that are inadequately understood and deserve further study. Substantively and statistically significant effects of metropolitan-level factors have been demonstrated by Taylor (1998) and by Baumer, Messner, and Rosenfeld (2003), among others. Acknowledging the importance of metropolitan areas as labor markets, U.S. government labor statistics and research on wage equity are presented for metropolitan areas (see, for example, Cohen and Huffman 2003; McCall 2001). Newspaper readership is often defined by metropolitan area (see, for example, Lacy 1984; Maier 2005), as is the scope of other media. Geographically-focused sociology research notes that activity patterns of Americans typically extend far beyond their immediate residential area (Matthews, 2008; Matthews, Detwiler, and Burton 2005).[2]

[2] Another advantage of studying context effects for larger geographical units is that there is less reason to worry about the direction of causation between race composition and attitudes. The chicken and egg problem haunts contextual as well as individual-level assessments of the impact of proximity and contact on intergroup attitudes. Although data analytic strategies have been employed to offer some reassurance that selection of diverse environments is not the primary cause of apparent contact effects (see for example Branton and Jones 2005; Dixon 2006; Welch et al. 2001) most analysts acknowledge that reverse causality remains an issue (Oliver and Mendelberg 2000). Although the role of race composition in white Americans' neighborhood choices is indisputable (see, for example, Zubrinsky Charles 2001, 2006), it is likely that economic considerations, sentiment, and accident dominate people's selection of metropolitan area or non-metropolitan county. For most whites, the economic or sentimental cost of avoiding a metropolitan area because of its minority population would be too great. And levels of residential segregation are high enough in virtually all areas to (Massey and Denton 1993; Stoll 2005) enable those averse to diversity to satisfy their taste for racially homogenous neighborhoods within the metropolitan area they choose for other reasons.

METHODOLOGY

Using responses of non-Hispanic white participants in the 1998-2002 General Social Surveys (GSS) merged with year 2000 Census data, we examine contextual effects on eight measures that collectively represent traditional prejudice; perceptions related to "new" racism; and racial policy views.

1998-2002 General Social Survey Samples.

The General Social Survey is administered biannually to stratified, multi-stage samples of English-speaking Americans over the age of 17 by the National Opinion Research Center (NORC) at the University of Chicago. For the 1998, 2000, and 2002 samples used in this project, response rates were 76%, 70%, and 70%, respectively.

Over the three years, the non-Hispanic whites whose responses are examined here number 6323. The GSS practice of administering selected questions to random sub-samples of respondents, inclusion of some measures in only one or two survey years, and item-specific refusals leave us with smaller samples for any given analysis. Ns range from 2904 to 5264.

For these three surveys, NORC randomly selected respondents from 100 Primary Sampling Units (PSUs), 70 metropolitan areas and 30 non-metropolitan counties.[3] Details of the sampling plan are available in the General Social Surveys 1972-2002: Cumulative Codebook, distributed by the Roper Center for Public Opinion Research. The PSUs are the contextual units representing localities in our analyses.

Dependent Variables.

Responses to twenty-three questions were used individually or in scales to yield eight measures of race-related views and feelings. This set includes measures of "traditional

[3] A single exception should be noted: One non-metro Primary Sampling Unit encompasses two counties.

prejudice," measures related to "new" forms of racism (Kinder and Sanders 1996), and indicators of race policy-related views.

Three scales represent traditional prejudice: *Stereotyping* is the unweighted mean of three quantities, the differences in white respondents' ratings of whites and blacks on seven-point scales representing trait dimensions of intelligence, industriousness, and propensity to violence. *Emotion* is the mean of two quantities, differences in reported warmth or coldness felt toward whites and blacks, and differences in respondents' feelings of closeness toward whites and blacks. *Social Distance* is the mean of reported reactions to living in a half-black neighborhood and to having a close family member marry a black person.

Three measures assess perceptions associated with "new" forms of racism. *Attributions for Racial Inequality* is a four-item scale registering respondents' assignment of responsibility for racial inequality to blacks' inborn ability, lack of effort, inadequate schools, and discrimination. *Belief in Reverse Discrimination* records respondents' assessments of how often white job seekers lose out to less qualified blacks. *Racial Resentment* is a two item scale registering sentiment that blacks should work their own way up and should not push where they are not wanted.

Finally, two measures assess views on racial policy questions. *Opposition to Affirmative Action* records opinions about racial preferences in hiring and promotion. *Opposition to Government Help* is a scale registering respondents' preferred level of government spending to assist blacks and their opinions about whether the government is obliged to help blacks.

Details on GSS question wording and alpha coefficients for the scales are presented in Table 1. *All measures were coded so that unfavorable racial views and feelings score high.*

TABLE 1 ABOUT HERE.

Focal Predictors: Locality Characteristics.

The focal predictors are built from information gathered in the 2000 census for the 100 metropolitan and non-metropolitan GSS Primary Sampling Units (PSUs). *Proportion Black* is a straightforward measure of black population share in the PSU; to address the positive skew in the data, we use the natural log of the proportion. *White Education Level* is the proportion of white residents who have not attained a college degree. *White Economic Status* is a scale, the mean of standard scores representing the local proportion of whites falling below the poverty level, the proportion having family income less than $50,000, and the proportion of white men who are not employed. Proportion black is correlated with the two SES indicators at the level of r = -.28 and r = -.40 for the education and economic status variables, respectively; the two indicators of locality-level white SES are more strongly correlated with each other (r = .68). *Note that the coding of these SES predictors, with high values assigned where contextual SES is low, means we would see positive partial relationships with racial prejudice if low SES among white residents encourages race prejudice.*

Residential Segregation was measured using dissimilarity indices computed at the block-group level from 2000 census data. Isolation or exposure indices would present relevant information in theory, but in practice they are too strongly correlated with *Proportion Black* to be useful in the same analyses. The dissimilarity index runs from 0 to 1.0, higher values representing greater segregation. It correlates at the level of .036 with *Proportion Black,* -.154 with *White Education Level,* and -.176 with *White Economic Status.*

Locality-level controls.

Population Size, the natural log of the 2000 population count for the locality, was included in all analyses, as was *Metro Status,* coded 1 for metropolitan localities and 0 for non-

metropolitan counties. Region was represented by a variable *South*, coded 1 for Southern localities, 0 otherwise.

Individual-level controls.

Four characteristics of individual respondents were included in all analyses: *Education*, measured as years of schooling; *Age* in years; gender, labeled *Male* to indicate coding of males as 1, females as 0; and *Family Income* on a 23-point scale. For dependent measures included in more than one survey year, we also included two dummy variables to indicate year of the survey, *Year 2000* and *Year 2002*; 1998 was the reference year.

Analyses

Because the GSS data come from multi-stage samples, we employ the multi-level modeling program HLM that adjusts for the lack of independence among errors within clusters (Bryk and Raudenbush 2002). Our strategy is to begin with an analysis that includes *Proportion Black* along with individual-level and locality-level controls. In Model 2 we add the second focal contextual predictor, *White Educational Level*. In Model 3, *White Educational Status* is removed and *White Economic Status* is added. Finally, Model 4 incorporates both *White Educational Level* and *White Economic Status*. Models 5 through 7 address questions about residential segregation. In Model 5, we keep the three focal predictors named above and add *Residential Segregation*. Model 6 also contains the interaction of *Residential Segregation* with *Proportion Black*. And in Model 7 and 8 we remove the former interaction term and introduce the interaction of *Residential Segregation* with *White Education Level* and *White Economic Status*.

RESULTS

HLM results for the initial four sets of analyses are presented in Tables 2 and 3. As background, effects of individual-level characteristics on the eight dependent measures are presented in Table 2 for the model that included all three focal contextual variables along with locality-level controls (Model 4 in Table 3). The individual-level effects change little as contextual variables are added to the model, and they are not the focus of this research; thus the single set of summaries presented in Table 2 suffices. There are few surprises here. The more highly educated and (with one exception) the young give more progressive answers to racial attitude questions. On the social distance scale and especially the two policy opinion measures, after controlling on education, whites with lower family income were more progressive. There was a gender difference on five of the eight dependent measures; in all cases women were the more progressive.

TABLES 2 AND 3 ABOUT HERE.

Table 3 contains the information that is our central interest – contextual effects for the localities that constitute the GSS PSUs. As noted earlier, three contextual factors -- population size, metro status, and region -- are included in all analyses as controls. Status as a metropolitan area or non-metro county never made a difference in these dependent measures, and none of the significant effects of population size withstood the introduction of locality-level education in the analysis. Congruent with findings in other recent research (see, for example, Tuch and Martin 1997), where we see evidence of regional differences, Southerners are the less progressive group.[4]

[4] Southern region and proportion black are confounded (r=.446), and the racial history of the U.S. leaves some question about how to disentangle the two. Inclusion of each in a multivariate analysis of white racial attitudes generally weakens the observed impact of the other. The region effects seen for Model 1 should be interpreted

We now turn to the primary focus of this paper, the effects of race composition and the two contextual measures of white SES in the locality.

Backdrop: Effects of black population share.

As we see in the first column of Table 3 (for Model 1), when *Proportion Black* is the only focal environmental predictor, it has highly significant effects on six of the eight racial attitude measures. In all cases, the race composition effects are in the expected direction – unfavorable attitudes (coded high) are more common among non-Hispanic whites living in areas with a larger black population share.

One of the two maverick measures for which the positive effect of black population share was not significant is the *Emotion* scale. Perhaps the feelings of warmth and closeness registered on this scale are so closely tied to personal experience as to be relatively impervious to environmental influence.

Surprisingly, the only other dimension of racial attitudes not affected by proportion black was opposition to affirmative action. Readers may recall that opinion about affirmative action was one of the few racial attitude items that did show an effect of metro-level racial proportions in the 1991 telephone survey data analyzed by Oliver and Mendelberg (2000), a pattern the earlier researchers interpreted as reflecting racial threat tied to metro-level job competition. Evidently that effect is not robust.[5]

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remembering that they are partial effects, controlling on black population share (as well as population size and metro status).

[5] The corollary of the point made in Note 3 is that assessing the impact of proportion black on white attitudes after controlling for Southern location, as we did here, predictably yields conservative estimates. If the ambiguity about the appropriate treatment of region and race composition in multivariate analyses had been resolved by reporting race composition coefficients without the control for South, we would see substantially larger proportion black effects on most dependent measures; and for one of the two attitude measures that didn't show a significant effect of proportion black in Table 3, opposition to affirmative action, the effect becomes significant at $p = .023$ (results available from the authors).

For the six dimensions of racial attitudes that did show a significant impact of black population share, effects declined only modestly when the other focal contextual predictors were introduced into the model. All remained clearly significant.

Education and economic dimensions of SES.

What about the impact of contextual white education level on racial attitudes? Recall, we have controlled for the education of the individual white respondents; we ask here about the impact of college attainment in the collectivity of local whites, over and above any impact of college on the attitudes of individuals who attended. Their own education aside, do those living where relatively few whites hold college degrees reveal greater race prejudice? Across our mostly-metro localities, a contextual effect of white education level is significant for six of the eight racial attitude measures, prejudice being higher in localities where white education is relatively low. It is two measures of traditional prejudice – stereotyping and emotion – that are unaffected by the aggregate education of local whites.

When black population share and white education level are in the model together, which influence is the stronger? The standardized slope coefficients presented in parentheses for Model 2 in Table 3 tell the story, and the answer is mixed. Where there is any difference to speak of in the strength of the two environmental influences, proportion black has the stronger influence on stereotyping, attributions for racial inequality, and belief in reverse discrimination. White education level has the stronger influence on racial resentment and opposition to affirmative action. The two contextual predictors have significant and approximately equally strong effects on social distance and opposition to government help, and neither has a significant effect on emotion.

In sum, net of individual white respondents' education, the education level of the white community is indeed an important environmental influence on racial attitudes. In fact, on two dimensions of racial attitudes the influence of metro-level aggregate education is notably stronger than the influence of locality race composition. But how are we to interpret these effects? Is white education level a proxy for economic hardship among whites in the locality, as some earlier research seemed to assume? The answer is clear when we add white economic status to the HLM analyses. For Model 4, where all three focal contextual predictors are included, the six effects of white educational level that were significant in Model 2 remain significant, and the partial effects of white economic status are non-significant across the board.

Does collinearity play a role here? As noted earlier, the contextual education and economic indicators are substantially correlated with each other. Is the absence of significant white economic status effects just a matter of white education level having stolen its thunder in the multivariate analysis? No. As revealed by the coefficients for Model 3, without white education level in the analysis, white economic status has significant effects on only three of the eight dimensions of racial attitudes, and those only at the .05 level. Comparing the Model 2 and Model 3 standardized coefficients of the two environmental SES dimensions confirms that education is dominant, not economics: The prominent contextual education effect is just that – not a proxy for the influence of economic status.

To aid in interpreting the contextual SES effects, we tested the idea that whites are most likely to experience threat from a large black population in localities where the white residents are less privileged. Among the sixteen interactions of proportion black with white educational status and white economic status on the eight attitudinal outcomes, only one was significant at the .05 level – the interaction of proportion black with white economic status in affecting racial

resentment -- and the direction of this interaction was opposite to the prediction: White residents' racial resentment is more strongly tied to the local black population share in areas where whites are economically privileged, not where they are struggling. (Result not shown here but available from the authors.) If such interaction would give proof that threat is implicated in white contextual SES effects, the test fails.

Residential segregation.

Table 4 presents results for Models 5 through 8, analyses including the 2000 dissimilarity index, our measure of residential segregation. All analyses reported in Table 4 also included the individual-level controls represented in Table 2 and the contextual-level controls -- population size, metropolitan status, and region – explicitly represented in Table 3. Including only the focal predictors in Table 4 makes the points of interest easier to see. Full results from these analyses are available from the authors.

TABLE 4 ABOUT HERE.

Signs of the coefficients for Model 5 reveal main effects of residential segregation that, save for the near-zero effect on social distance, show greater segregation to be associated with more negative white attitudes; these effects are significant for four of the eight racial attitude dimensions – stereotyping, emotion, attributions for racial inequality, and racial resentment.

As noted earlier, Oliver and Mendelberg (2000) assumed that any observed influence of black population share on white attitudes would represent a threat effect, and thus explained the modest predictive value of proportion black in their research as a product of residential segregation that counteracts the sense of threat whites might otherwise feel in the presence of large local African American populations. The implied interaction prediction, not tested in the earlier research, receives qualified support here, as shown in results for Model 6. The negative

coefficients seen for seven of the eight racial attitude dimensions do suggest that the impact of proportion black is weaker where segregation is high; but the interaction is significant for only two dimensions of racial attitudes – emotion and opposition to government help. Residential segregation may comfort some whites who otherwise would react more strongly to substantial black numbers in their localities, but this tendency is muted.

As for aggregate white education, signs of interaction with residential segregation are even fainter and less consistent. In coefficients for Model 7 we see that residential segregation depresses the white education effect for all outcomes save the two policy opinion measures, but the interaction is significant only for the emotion scale. Any claim that segregation moderates the contextual white education effect must be judged very tenuous. The story for interaction of residential segregation with aggregate white economic level is not much different. Model 8 results show that for all but one attitudinal outcome, residential segregation depresses any tendency for white respondents' attitudes to be more negative where aggregate white economic level is low, but only one of the eight interaction effects is statistically significant.[6]

SUMMARY AND CONCLUSIONS

What have we learned from these data, and what questions need to be resolved? For a start, the race composition of the 100 metropolitan areas and non-metro counties represented in the 1998-2002 General Social Survey has an impact on most dimensions of racial attitudes held by white residents. White residents of localities with a large black population share tend to be less progressive in their race-related attitudes. This pattern is congruent with claims of selected earlier analysts, including Taylor's (1998) conclusion based on GSS data collected a decade

[6] Recall that main effects of aggregate white economic level net of education level were nonsignificant.

earlier. It is incongruent with Oliver and Mendelberg's (2000) skepticism about the importance of black population share, possibly reflecting differences in the measurement of race composition, the dependent measures, the sample, or their emphasis on zipcode-level effects rather than those of larger geographical units.

With respect to the prominence of education as a contextual influence on white racial attitudes, Oliver and Mendelberg's (2000) point is made more strongly by these results than by their own. At the metro- or non-metro-county level, the proportion of whites without a college degree almost rivals black population share in the consistency and size of its effects on white attitudes.

Importantly, as seen in Table 3 results for Model 4, when both white education level and white economic status are included in the analysis, education level remains a significant predictor for most racial attitude measures and white economic status is never significant. White education level is not a proxy for material hardship in the community: Limited education among white residents has a pronounced net effect on white racial attitudes; economic hardship has none.

The observed main effects of residential segregation suggest that in general white residents' racial attitudes are less progressive where residential segregation is high, although this effect was significant on only four of our eight scales. These results are congruent with earlier research, especially studies with smaller contextual units (e.g. Welch et al. 2001), and can be read as support for contact theory predictions of attitudinal benefit from intergroup association. However, as noted earlier, interpreting positive main effects of segregation on prejudice is

challenging, and we cannot do justice to that task in this paper.[7] On their face, our results contradict notions that segregation relieves threat and the negative attitudes it may breed.

An important reason for introducing segregation into these analyses was to inform interpretation of race composition and contextual white SES effects by detecting any interaction with segregation. For most racial attitude dimensions, high levels of segregation weaken the impact of race composition, but the interaction is statistically significant for only two of the eight attitude measures. A tendency for contextual education and economic effects to be weaker where segregation is high can be seen for some dimensions of racial attitudes, but the direction of the effect is not entirely uniform across dependent measures and is significant only for two of the sixteen estimated interaction effects. Overall, observed interactions tend to be weak, and patterns are not definitive.

This project assessed a variety of racial attitude measures, in acknowledgment that whites' racial perspectives are often multi-dimensional, and patterns that emerge in survey data are not necessarily homogenous. Conclusions based on a handful of racial attitudes are worrisome; alternate selections of attitudinal outcome measures might have yielded different findings. The major findings of this study are reasonably uniform across racial attitudes measures; however, there is some inconsistency in observed environmental influences on various racial attitudes. Better understanding of this variability would be useful. Are null effects on the two single-item measures a simple matter of lower reliability? How telling is the distinction between cognitive and affective prejudice? Where do inconsistencies in environmental effects

[7] Especially, persistent segregation in a locality may be a *reflection* of negative racial attitudes among white residents, as well as or instead of a cause.

reflect the difference between voicing acceptance of racial minorities and paying the bill to remedy inequities? These issues invite systematic pursuit in subsequent research.[8]

There is especially pressing need for future research develop fuller insights into the mediation of two contextual effects shown here to be important—black population share and white education level.

Beginning with the former, what happens in localities with large proportions of black residents so that negative racial attitudes among local whites are fueled? As noted in the introduction to this paper, threat associated with "realistic group conflict" (Levine and Campbell 1972; Blalock 1967) or slippage of "group position" (Blumer 1958) is often presumed to be the key mediator. However, earlier efforts to demonstrate such mediation have not been persuasive (Fossett and Kiecolt 1989; Taylor 1998). The present research estimated interaction effects that might plausibly have revealed the operation of threat—between race composition and aggregate white economic status—but evidence for a threat dynamic was not strong.

Attempts to validate threat interpretations of race composition effects are certainly complicated by the potential existence of many forms of threat – economic, political, status, physical, cultural, and "diffuse threat to the social order" (Stults and Baumer 2007). Also, threat exists in the eye of the beholder, and perception is not veridical. Interpreting their individual-level data, Halperin, Pedahzur, and Canetti-Nisim (2007) confront this fact, suggesting that advanced education may lower hostility toward outgroups by decreasing the *perception* of threat. An analogous point was powerfully made by Kinder and Sanders: "Threat is not so much a clear-eyed perception as it is an emotion-laden attitude. Whites feel racially threatened because they

[8] Other important questions, not our focus here, also deserve continuing research attention. We trust future studies will permit analysts to make confident statements about differences in contextual influences across broader and narrower contextual units, and to extend generalizations about environmental effects to multi-racial and multi-ethnic perceivers and targets.

are predisposed to look at the world that way; they see danger and risk when others, more sympathetic in their racial sentiments, do not" (1996: 90).

The challenges to understanding the psychological mediation of white reactions to sizeable black populations need not deter us from asking about observable mediation via mass communications on the one hand, local political and civic discourse on the other. As noted in Taylor (1998), the content of local broadcast and print media must certainly be channels through which population proportions come to influence white attitudes. The structure of local political competition and the public statements of candidates and local officials are other potential mediators open to examination by energetic researchers.

What about the contextual education effect? The 1998-2002 GSS data clearly show that contextual white education level is not a proxy for economic status tied to stressful surroundings that would spark scapegoating. We must look elsewhere. Net of individual education, how *does* limited education among local whites translate into less favorable attitudes toward blacks?[9]

The content of local norms was discounted as an explanation by Oliver and Mendelberg (2000), who reasoned that the generation of strong norms would require sustained interpersonal interaction not found across large localities. Their finding that the strength of the education effect did not increase with respondents' length of residence in the same community was also taken as disqualifying evidence for the norms-as-mediator notion. Indeed, for the 2002 GSS data we were able to look for the same cross-level moderation, and like the earlier researchers didn't find evidence for it (results available from the authors).

[9] Our examination of interactions with segregation does not provide much insight. Like race composition, there is some tendency for the education effect to be smaller in highly segregated localities, but not across all racial attitudes and generally not significantly so. Whatever dynamics mediate the environmental effect of white education level, apparently they are largely independent of residential segregation.

But recall Moore and Ovadia's (2006) thinking. Focusing on better-educated localities where progressive efforts may be generated rather than on poorly-educated communities where white prejudice may be socially supported, these analysts argue that sustained interpersonal contact among residents is not necessary to generate positive environmental influence. Rather, the answer may lie in "institutional and macrosocial means" (2006:2215). Where there is a critical mass of the better educated whites shown here and elsewhere to have more positive racial attitudes, localities may more often pass and enforce anti-discrimination laws, positively represent racial diversity in school curricula and civic programs, and generally support messages of tolerance and intergroup appreciation. Effects of this community culture would be felt by highly-educated and poorly-educated white residents alike.

Documenting such dynamics would be a formidable task for researchers, but the yield in understanding contextual influences on white racial attitudes may be well worth the effort.

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Table 1. Dependent Variables -- Measures of Racial Attitudes.

Traditional Prejudice

Stereotyping (alpha = .724)

Where would you rate whites in general/Blacks [on this 7-point scale that runs from Hard-Working to Lazy]?

Where would you rate whites in general/Blacks [on this 7-point scale that runs from Intelligent to Unintelligent]?

Where would you rate whites in general/Blacks [on this 7-point scale that runs from Violence-Prone to Not Violence-Prone]?

*Emotion (*alpha = 662)

In general, how warm or cool do you feel towards African Americans/white or Caucasian Americans? [9-point scale]

In general, how close do you feel to Blacks/Whites? [9-point scale]

Social Distance (alpha = .694)

Now I'm going to ask you about different types of contact with various groups of people. In each situation would you please tell me whether you would be very much in favor of it happening, somewhat in favor, neither in favor nor opposed to it happening, somewhat opposed, or very much opposed to it happening? …

Living in a neighborhood where half of your neighbors were blacks?

What about having a close relative or family member marry a black person? (Would you be very in favor it it happening, somewhat in favor, neither in favor nor opposed to it happening, somewhat opposed, or very opposed to it happening?)

Table 1. Dependent Variables -- Measures of Racial Attitudes (continued).

Perceptions Associated with "New" Forms of Racism.

Attributions for Racial Inequality (alpha = .515)

On average Blacks/African-Americans have worse jobs, income, and housing than white people. Do you think these differences are…

Mainly due to discrimination? (coding reversed)

Because most (Blacks/African-Americans) have less in-born ability to learn?

Because most (Blacks/African-Americans) don't have the change for education that it takes to rise out of poverty? (coding reversed)

Because most (Blacks/African-Americans) just don't have the motivation or will power to pull themselves up out of poverty?

Belief in Reverse Discrimination

What do you think the chances are these days that a white person won't get a job or promotion while an equally or less qualified black person gets on instead? Is this very likely, somewhat likely, or not very likely to happen these days?

Racial Resentment (alpha = .517)

Here are some opinions other people have expressed in connection with black-white relations. Which statement on the card comes closest to how you, yourself, feel? [Card contains responses Agree strongly, Agree slightly, Disagree slightly, Disagree strongly]
The first one is…
Blacks/African-Americans shouldn't push themselves where they're not wanted.

Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with the following statement [statement appears on card]:
Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without special favors.

Table 1. Dependent Variables -- Measures of Racial Attitudes (continued).

Racial Policy Opinions

Opposition to Affirmative Action

Some people say that because of past discrimination, blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of blacks is wrong because it discriminations against whites. What about your opinion – are you for or against preferential hiring and promotion of blacks? IF FAVORS: Do you favor preference in hiring and promotion strongly or not strongly? IF OPPOSES: Do you oppose preference in hiring and promotion strongly or not strongly?

Opposition to Government Help (alpha = .561)

[Now look at CARD.] Some people think that (Blacks/African-Americans) have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to (Blacks/African-Americans). Where would you place yourself on this scale, or haven't you made up your mind on this?

We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount…

[Data were combined for the two split-ballot versions of this question.]

Version A: Improving the conditions of Blacks

Version B: Assistance to Blacks

Table 2. HLM Estimates – Fixed Effects of Individual-Level Controls on Racial Attitudes. [a]

	Stereotyping (N = 3235)	*Emotion* (N = 4210)
Education	-.045*** (-.118)	-.021*** (-.063)
Age	.010*** (.157)	.004*** (.071)
Family Income	-.001 (-.005)	.000 (.002)
Male	.104** (.048)	-.037 (-.019)
Year 2000	.189*** (.088)	.051 (.024)
Year 2002	.101 (.036)	-.003 (-.002)

	Social Distance (N = 3345)	*Attributions for Racial Inequality* (N = 3037)
Education	-.040*** (-.131)	-.060*** (-.209)
Age	.013*** (.254)	.003** (.064)
Family Income	.008* (.047)	.003 (.019)
Male	.153*** (.088)	.139*** (.088)
Year 2000	-.074* (-.043)	.019 (.012)
Year 2002	-.156*** (-.068)	.043 (.022)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all focal contextual variables and controls.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 2. HLM Estimates – Fixed Effects of Individual-Level Controls on Racial Attitudes (continued).[a]

	Belief in Reverse Discrimination (N = 3040)	*Racial Resentment* (N = 4538)
Education	-.022*** (-.092)	-.073*** (-.221)
Age	.002** (.049)	.008*** (.143)
Family Income	.004 (.029)	.001 (.003)
Male	-.015 (-.011)	.144*** (.076)
Year 2000	-.070* (-.049)	-.023 (-.012)
Year 2002	.023 (.013)	-.005 (-.002)

	Opposition to Affirmative Action (N = 2904)	*Opposition to Government Help* (N = 5264)
Education	-.015* (-.050)	-.030*** (-.095)
Age	.001 (.020)	.002* (.037)
Family Income	.016*** (.094)	.015*** (.084)
Male	.019 (.011)	.117*** (.064)
Year 2000	-.110** (-.063)	-.038 (-.020)
Year 2002	.000 (.000)	.056 (.029)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all focal contextual variables and controls.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3. HLM Estimates – Contextual (PSU) Effects on Racial Attitudes. [a]

Stereotyping (N = 3235)	Model 1		Model 2		Model 3		Model 4	
Population Size	-.054[*]	(-.084)	-.039	(-.060)	-.044	(-.068)	-.035	(-.054)
Metro Status	.020	(.008)	.036	(.014)	.024	(.010)	.036	(.014)
South	.027	(.012)	.030	(.013)	.021	(.009)	.026	(.011)
Proportion Black	**.113**[***]	**(.141)**	**.108**[***]	**(.134)**	**.116**[***]	**(.144)**	**.110**[***]	**(.137)**
White Education			**.045**	**(.038)**			**.038**	**(.032)**
White Econ. Status					**.037**	**(.028)**	**.021**	**(.016)**

Emotion (N = 4210)	Model 1		Model 2		Model 3		Model 4	
Population Size	-.022	(-.042)	-.006	(-.011)	-.015	(-.029)	-.005	(-.010)
Metro Status	.016	(.008)	.030	(.015)	.018	(.009)	.030	(.015)
South	-.020	(-.011)	-.018	(-.009)	-.024	(-.013)	-.019	(-.010)
Proportion Black	**.017**	**(.026)**	**.012**	**(.018)**	**.018**	**(.028)**	**.012**	**(.018)**
White Education			**.046**	**(.048)**			**.044**	**(.046)**
White Econ. Status					**.025**	**(.024)**	**.006**	**(.006)**

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls.

[*] $p < .05$ [**] $p < .01$ [***] $p < .001$

Table 3. HLM Estimates – Contextual (PSU) Effects on Racial Attitudes (continued).[a]

Social Distance (N = 3345)	Model 1	Model 2	Model 3	Model 4
Population Size	-.062*** (-.141)	-.033 (-.075)	-.042* (-.096)	-.027 (-.062)
Metro Status	.055 (.032)	.081 (.048)	.060 (.035)	.080 (.047)
South	.176*** (.111)	.182*** (.114)	.165*** (.104)	.175*** (.110)
Proportion Black	**.063*** (.116)**	**.054** (.099)**	**.067*** (.123)**	**.058** (.106)**
White Education		**.082*** (.103)**		**.069** (.087)**
White Econ. Status			**.068* (.077)**	**.039 (.042)**

Attributions for Racial Inequality (N = 3037)	Model 1	Model 2	Model 3	Model 4
Population Size	-.050** (-.109)	-.018 (-.039)	-.037* (-.080)	-.019 (-.041)
Metro Status	.007 (.004)	.039 (.022)	.011 (.006)	.039 (.022)
South	.112* (.068)	.121** (.072)	.106* (.063)	.122** (.073)
Proportion Black	**.097*** (.169)**	**.086*** (.150)**	**.099*** (.173)**	**.085*** (.148)**
White Education		**.093*** (.111)**		**.095*** (.114)**
White Econ. Status			**.037 (.040)**	**-.005 (-.005)**

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3. HLM Estimates – Contextual (PSU) Effects on Racial Attitudes (continued).[a]

Belief in Reverse Discrimination (N = 3040)	Model 1	Model 2	Model 3	Model 4
Population Size	-.034* (-.090)	-.017 (-.045)	-.034* (-.090)	-.021 (-.056)
Metro Status	-.018 (-.012)	-.001 (-.001)	-.018 (-.012)	.002 (.001)
South	-.028 (-.020)	-.026 (-.019)	-.029 (-.021)	-.022 (-.016)
Proportion Black	**.062*** (.132)**	**.057*** (.122)**	**.063*** (.134)**	**.055*** (.117)**
White Education		**.053* (.078)**		**.061** (.089)**
White Econ. Status			**.002 (.003)**	**-.024 (-.032)**

Racial Resentment (N = 4538)	Model 1	Model 2	Model 3	Model 4
Population size	-.067** (-.151)	-.004 (-.009)	-.045 (-.101)	-.005 (-.011)
Metro status	.024 (.014)	.071 (.041)	.028 (.016)	.072 (.042)
South	.109 (.068)	.125** (.078)	.097 (.060)	.126** (.078)
Proportion Black	**.082*** (.148)**	**.060** (.109)**	**.086*** (.156)**	**.060** (.109)**
White Education		**.173*** (.215)**		**.175*** (.217)**
White Econ. Status			**.072* (.080)**	**-.005 (-.006)**

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 3. HLM Estimates – Contextual (PSU) Effects on Racial Attitudes (continued).[a]

Opposition to Affirmative Action

(N = 2904)	Model 1		Model 2		Model 3		Model 4	
Population Size	-.034*	(-.079)	-.011	(-.025)	-.017	(-.039)	-.005	(-.012)
Metro Status	.023	(.014)	.048	(.029)	.031	(.019)	.049	(.029)
South	.046	(.029)	.051	(.032)	.037	(.024)	.045	(.029)
Proportion Black	**.022**	**(.041)**	**.014**	**(.026)**	**.025**	**(.046)**	**.017**	**(.032)**
White Education			**.070****	**(.089)**			**.057***	**(.073)**
White Econ. Status					**.061***	**(.070)**	**.038**	**(.043)**

Opposition to Government Help

(N = 5264)	Model 1		Model 2		Model 3		Model 4	
Population Size	-.048**	(-.094)	-.024	(-.047)	-.033	(-.065)	-.019	(-.037)
Metro Status	-.079	(-.040)	-.056	(-.028)	-.075	(-.038)	-.057	(-.029)
South	.109*	(.059)	.117*	(.063)	.100*	(.054)	.110*	(.059)
Proportion Black	**.060****	**(.094)**	**.052****	**(.082)**	**.063*****	**(.099)**	**.054****	**(.085)**
White Education			**.072****	**(.078)**			**.063***	**(.068)**
White Econ. Status					**.053**	**(.051)**	**.026**	**(.025)**

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4. HLM Estimates – Coefficients Assessing the Role of Residential Segregation. [a]

Stereotyping (N = 3235)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.115*** (.143)	.293** (.364)	.109*** (.136)	.101*** (.126)
White Education			.169 (.144)	
White Econ. Status				.346* (.265)
Segregation	.527* (.055)	-.260 (-.027)	.580 (.061)	.703* (.073)
Seg. X Prop.Black		-.270 (-.239)		
Seg. X Education			-.251 (-.133)	
Seg. X Econ.Status				-.529 (-.262)

Affective Orientation (N = 4210)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.018 (.028)	.272*** (.418)	.008 (.012)	.011 (.017)
White Education			.252* (.266)	
White Econ.Status				.193 (.183)
Segregation	.419* (.054)	-.689* (-.089)	.516* (.067)	.514* (.066)
Seg. X Prop.Black		-.386*** (-.423)		
Seg. X Education			-.385** (-.253)	
Sex X Econ. Status				-.294 (-.180)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls and the three locality level controls – population size, metro status, and region.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4. HLM Estimates – Coefficients Assessing the Role of Residential Segregation (continued).[a]

Social Distance (N = 3345)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.063** (.116)	-.007 (-.013)	.051*** (.094)	.055** (.101)
White Education			.114 (.143)	
White Econ. Status				.319* (.360)
Segregation	-.015 (-.002)	.295 (.045)	-.220 (-.034)	.022 (.003)
Seg. X Prop.Black		.107 (.140)		
Seg. X Education			-.038 (-.030)	
Seg. X Econ. Status				-.399 (-.292)

Attributions for Racial Inequality (N = 3037)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.099*** (.173)	.203** (.354)	.086*** (.150)	.086*** (.150)
White Education			.164 (.196)	
White Econ. Status				.309* (.332)
Segregation	.551** (.081)	.089 (.013)	.425* (.062)	.706*** (.103)
Seg. X Prop.Black		-.159 (-.198)		
Seg. X Education			-.150 (-.112)	
Seg. X Econ. Status				-.472* (-.328)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls and the three locality level controls – population size, metro status, and region.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4. HLM Estimates – Coefficients Assessing the Role of Residential Segregation (continued).[a]

Belief in Reverse Discrimination (N = 3040)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.063*** (.134)	.106 (.226)	.054*** (.115)	.056*** (.120)
White Education			.171 (.250)	
White Econ. Status				.142 (.187)
Segregation	.148 (.027)	-.040 (-.007)	.125 (.022)	.243 (.043)
Seg. X Prop.Black		-.065 (-.099)		
Seg. X Education			-.209 (-.190)	
Seg. X Econ. Status				-.235 (-.200)

Racial Resentment (N = 4538)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.086*** (.156)	.246** (.445)	.063** (.114)	.086*** (.096)
White Education			.171 (.212)	
White Econ. Status				.116 (.129)
Segregation	.599** (.091)	-.105 (-.016)	.229 (.035)	.557* (. 085)
Seg. X Prop.Black		-.246 (-.318)		
Seg. X Education			.012 (-.009)	
Seg. X Econ. Status				-.101 (-.073)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls and the three locality level controls – population size, metro status, and region.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4. HLM Estimates – Coefficients Assessing the Role of Residential Segregation (continued).[a]

Opposition to Affirmative Action (N = 2904)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.022 (.041)	.055 (.102)	.016 (.030)	.026 (.048)
White Education			-.006 (-.008)	
White Econ. Status				.035 (.040)
Segregation	.203 (.032)	.058 (.009)	-.001 (-.000)	.103 (.016)
Seg. X Prop.Black		-.050 (-.066)		
Seg. X Education			.129 (.102)	
Seg. X Econ. Status				.037 (.027)

Opposition to Government Help (N = 5264)	Model 5	Model 6	Model 7	Model 8
Proportion Black	.062*** (.097)	.291*** (.457)	.053** (.083)	.061** (.096)
White Education			.058 (.062)	
White Econ. Status				.113 (.109)
Segregation	.210 (.028)	-.799* (-.105)	.046 (.006)	.175 (.023)
Seg. X Prop.Black		-.352*** (-.395)		
Seg. X Education			.020 (.013)	
Seg. X Econ. Status				-.104 (-.065)

[a] Values are unstandardized HLM coefficients (and their standardized counterparts) estimated from analyses where the model also included all individual-level controls and the three locality level controls – population size, metro status, and region.

* $p < .05$ ** $p < .01$ *** $p < .001$