

Black Workers in White Places: Daytime Racial Diversity and White Public Opinion*

Brian T. Hamel[†] Bryan Wilcox-Archuleta[‡]

October 12, 2020

Abstract

Research on the effects of racial context on public opinion often uses residence-based measures of context, ignoring how the demographic composition of a geographic space may change throughout the day. In this short article, we introduce a new zip code-level measure, racial flux, that accounts for how contexts differ between worker and resident populations. We merge our measure with survey data from the Cooperative Congressional Election Study, and show that greater racial flux — more Black workers relative to Black residents in a zip code — is associated with more conservative voting behaviors and racial attitudes among whites who live in the zip code. Our study suggests that whites are as politically responsive to the presence of non-resident minorities as they are resident minorities. More work is needed on measuring racial context, and on exploring how and why context affects political preferences.

*We thank Dan Hopkins, Ben Newman, Tyler Reny, Dan Smith, and Yamil Velez for helpful comments and conversations. Hamel and Wilcox-Archuleta thank the National Science Foundation Graduate Research Fellowship program and the John Randolph Haynes and Dora Haynes Foundation for support, respectively.

[†]Ph.D. Candidate, Department of Political Science, University of California, Los Angeles, 4289 Bunche Hall, Los Angeles, CA 90095-1472 (bhamel@ucla.edu)

[‡]Independent Researcher (wilcox.bryan.m@gmail.com)

A prominent body of work shows that white voting behavior and racial attitudes reflect perceptions of racial threat (e.g., Blalock 1967; Key 1949). For example, Reny and Newman (2018) find that Black inflows to white areas during the Second Great Migration predicted support for a proposition protecting racial discrimination in housing. Enos (2016) studies outflows in Chicago, showing how whites became less likely to support conservative candidates following the destruction of a large public housing project that moved thousands of Blacks further from whites. Others find that local growth in the immigrant and Hispanic population increases white opposition to immigration (e.g., Hopkins 2010; Newman 2013).¹

Each of these studies conceptualizes feelings of racial threat as a response to outgroup *residents*. For instance, Newman (2013) relates over-time changes in the size of the Hispanic population to attitudes toward immigration among whites. To do so, he links survey respondents to residential demographic data from their county at different points in time. Yet, we know that contexts are constantly changing. Put another way, few people live, work, shop, and travel exclusively in one neighborhood, let alone their own residential neighborhood. Our paper builds off of the simple premise that residents are not the only ones who occupy a geographic space. As a result, traditional, resident-only measurement strategies may not paint a complete picture of neighborhood diversity, as many neighborhoods may be more or less racially diverse than what researchers ascribe to them in empirical research. Perhaps even more important, traditional measurement approaches leave us to wonder whether whites are politically responsive to influxes of outgroup, non-resident workers — however transient their presence may be — in the same way that they are to the presence of outgroup residents.

In this short article, we test whether white public opinion — voting behavior in presidential and congressional elections, feelings of racial resentment, and attitudes on affirmative action — are correlated with the presence of *non-resident* outgroup workers. To do so, we introduce a new dataset from the U.S. Census Bureau, and a new zip code-level measure of

¹An alternative perspective suggests that sustained contact with racial and ethnic minorities gives rise to more accepting attitudes among whites (Allport 1954; Carsey 1995; Mo and Conn 2018; Oliver and Wong 2003; Oliver 2010).

racial context — racial flux — that gives the difference between the Black worker population and the Black residential population. As expected, we find that racial flux is positively (negatively) correlated with the white (Black) resident population, suggesting that resident-only measures of context do not fully capture diversity as it appears in a research subject’s residential area and view. Rather, resident-only measures tend to understate the amount of diversity that a place sees each day. We then link these data to the Cooperative Congressional Election Study, and find that racial flux is associated with more conservative white public opinion. Specifically, whites in contexts with many Black workers but fewer Black residents — i.e., neighborhoods seeing greater diversity during the day than at night — are less likely to support Democratic candidates, more racially resentful, and more opposed to affirmative action. While our design does not permit causal claims, our results are robust to a host of alternative specifications. For instance, we find no statistically significant relationship between racial flux and attitudes on non-racial political issues, such as abortion, climate change, and gun control. We also find no evidence of a relationship between racial flux and political preferences among Black respondents. Finally, we show that the relationship between the presence of Black workers and white racial conservatism is largest in the most heavily white residential zip codes.

Our results provide suggestive evidence that the way in which contexts change demographically throughout the day influences people’s political thinking. We see our findings as indicative of the power of racial threat, as whites respond politically to the presence of outgroup workers — minorities who move in and out of a neighborhood every day — in precisely the same way they do when minorities take up residence in their neighborhood (Enos 2016; Newman 2013; Reny and Newman 2018). Many whites may experience and take note of more diversity than we may have previously thought. Further, the scope of context’s impact on political attitudes may have been previously understated. While our analyses cannot speak to the mechanisms underlying these associations, they may simply reflect a “get off my lawn” effect: white residents dislike that “undesirable” non-resident racial minorities

move into *their* space every day for work. In addition, these findings may reflect heightened economic anxiety as Black non-residents seek economic gain. We discuss the implications of our work for measurement and theory in the study of racial context and political preferences in more detail in the conclusion.

1 Describing Racial Flux

The LEHD Origin-Destination Employment Statistics (LODES) data gives detailed information about where workers live and where workers work. Included is information about the racial composition of the workforce and of the workers who live in that same area. Using only data from 2010 to 2014,² we create a measure capturing differences between the Black worker population and the Black resident population. For each zip code, we subtracted the percent Black in the resident population from the percent Black in the work population.³ We then averaged these data across years (within zip codes). Positive values indicate a larger Black worker population relative to the Black resident population. Negative values indicate a larger Black resident population relative to the Black worker population. We call our measure “racial flux,” as it reflects the way in which contexts change demographically from day to night.⁴

²We do so because we later link these data to survey data from the CCES about racial attitudes, and the questions we use — the standard racial resentment questions — are only consistently available in 2010, 2012, and 2014

³Consistent with some previous work, we use data at the zip code level (e.g., Hopkins 2010; Velez 2018). We choose zip codes because it offers one of the lowest levels of aggregation available, but also because they appear to be a meaningful locus of exposure. Velez and Wong (2017), for example, shows that objective zip code demographics are the most predictive of user defined boundary-based measures.

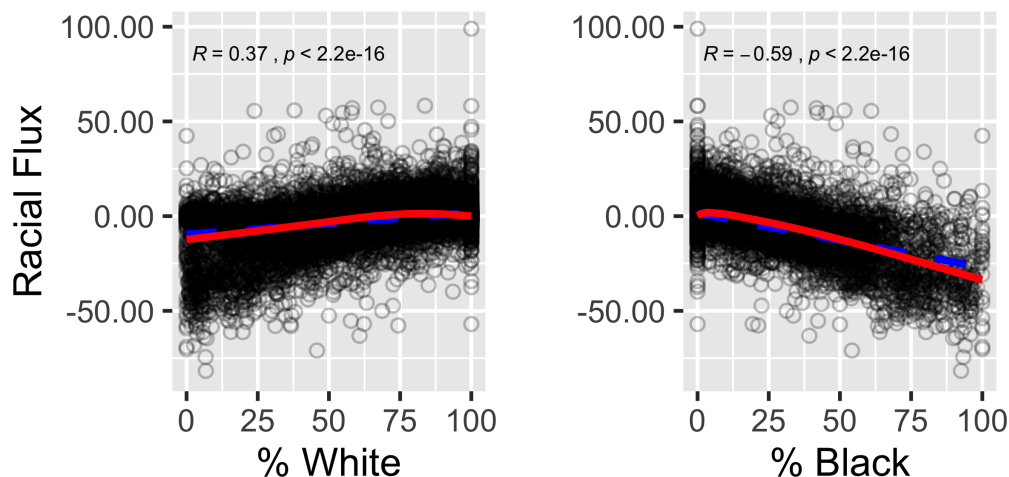
⁴We note three features and limitations of the LODES data. First, these counts reflect workers, not people. The data are generated by administrative data on earnings. As a result, the data give the number of workers who live in a given area, and the number of workers who workers in a given area, respectively. Non-working individuals are not captured by these measures. Finally, and perhaps more importantly, the data do not speak to inflows and outflows from a given area. Imagine we are studying Austin, TX. Ideally, we would want to know — with details about race — how many people live in Austin who also work in Austin, how many people live in Austin but do not work in Austin, and how many people live outside of Austin, but work in Austin. A measure of inflows and outflows would allow us to better speak to the composition of individuals. The counts given by the LODES data though, may double-count individuals, for example, who both live in and work in the same area. Our measure then can only reflect “how many more” or “how many fewer” Blacks work — relative to live — in a particular zip code. Finally, we focus on Black workers in

Our study is in part motivated by a suspicion that resident-only measures of context may understate racial diversity in many areas. To test our expectation, we merged our measure of racial flux with estimates of zip code-level racial diversity from the American Community Survey (ACS). Figure 1 gives the bivariate association between racial flux, and the percent white and percent Black resident population, respectively. It gives both the line of best fit from a linear regression (blue) and a LOESS regression (red). We find that racial flux is positively related to the percent white. In short, predominantly white areas (among residents) are actually more diverse than standard measures of context would suggest. Put another way, in more white neighborhoods, the gulf between the number of Black residents and the number of Black workers is larger — and in the direction of greater diversity. In short, whites in predominantly residentially white areas observe and potentially interact with more diversity day-to-day than we might otherwise think. Conversely, we find that as the size of the Black resident population increases, the size of the Black worker population — relative to the Black resident population — decreases.⁵

this paper because the LODES racial categorizations are not crossed with ethnicity, meaning that we cannot distinguish between non-Hispanic whites and Hispanic whites. We do not, however, see a theoretical reason why whites should not react similarly to Hispanic workers, and we suspect these influxes would be reflected in attitudes toward immigration. We hope that future research will extend our framework to Hispanics and other foreign-born populations.

⁵In the Appendix, we present two additional pieces of descriptive evidence. First, we show how these differences manifest themselves in particular cities and neighborhoods (Table A1). Second, we present a multivariate model of racial flux using a variety of zip code-level, resident-based demographic and economic variables from the ACS (Table A2). We still find a positive association between percent white and racial flux, and a negative association between percent Black and racial flux. We also find evidence that areas high in racial flux tend to have more educated residents and wealthier residents. Geographically, we find that more densely-populated neighborhoods, zip codes in the South, and non-rural (i.e., urban/small cities, and suburban) communities tend to experience more racial flux.

Figure 1: **Racial Flux and Residential Racial Composition**



2 Racial Flux and White Public Opinion

Next, we examine whether these influxes of outgroup workers correlate with more conservative white public opinion. Specifically, we ask: how does living in a context with significant racial flux — where outgroup “outsiders” move in and out of one’s residential neighborhood every day — affect one’s political preferences?⁶ We merge our measure with the 2010-2014 cross-section of the Cooperative Congressional Election Study (CCES). The CCES is a nationally representative survey of 50,000+ Americans, and it includes residential zip code for each respondent, allowing us to link each subject to the racial flux in their neighborhood.

We restrict our main sample to white respondents only, and examine four outcomes: support for Democratic candidates for President (in 2012) and U.S. House (in 2010, 2012, and 2014), feelings of racial resentment, and opposition to affirmative action. We model each as a function of racial flux, as well as a series of individual-level covariates from the CCES (party identification, ideology, gender, age, family income, and education) and each of

⁶We are not able to test whether people who live in a predominantly white neighborhood, but who work in an area with more racial diversity, are politically distinct from those who both live and work in racially diverse (or racially homogeneous) contexts. We see this as an important extension — akin to new work exploring how adolescent racial contexts and adulthood racial contexts affect adulthood racial attitudes (Goldman and Hopkins 2020) — but it requires information on where people work.

the resident-only contextual variables included in Table A2.⁷ We estimate each model using ordinary least squares, and we cluster our standard errors at the zip code-level.⁸ Table 1 shows the association between racial flux and each of our outcome variables.⁹ As is clear, we find evidence that more racial flux — that is, a larger Black worker population relative to the Black resident population — is associated with a decrease in the probability of voting for Democrats, and an increase in racially conservative attitudes among whites. Note that these associations persist even as we adjust for the base, or resident-level, of racial diversity, suggesting that how contexts, in what way, and by how much, from that base level has a unique and independent association with political attitudes. Figure 2 reports predicted probabilities across levels of racial flux with all covariates held to their mean. We find that at the 5th percentile of racial flux (-9.38), the probability of voting for Obama in 2012 is 0.46. In contrast, the probability of supporting Obama at the 95th percentile of racial flux (8.76) is about 0.43. Likewise, moving from 5th to the 95th percentile in racial flux is associated with an increase of about 0.08 percentage points on a racial resentment scale ranging from 1 to 5, where higher values indicate greater racial resentment.¹⁰

As noted earlier, our research design does not permit causal claims about the relationship between racial flux and white public opinion. An age-old challenge in research on context

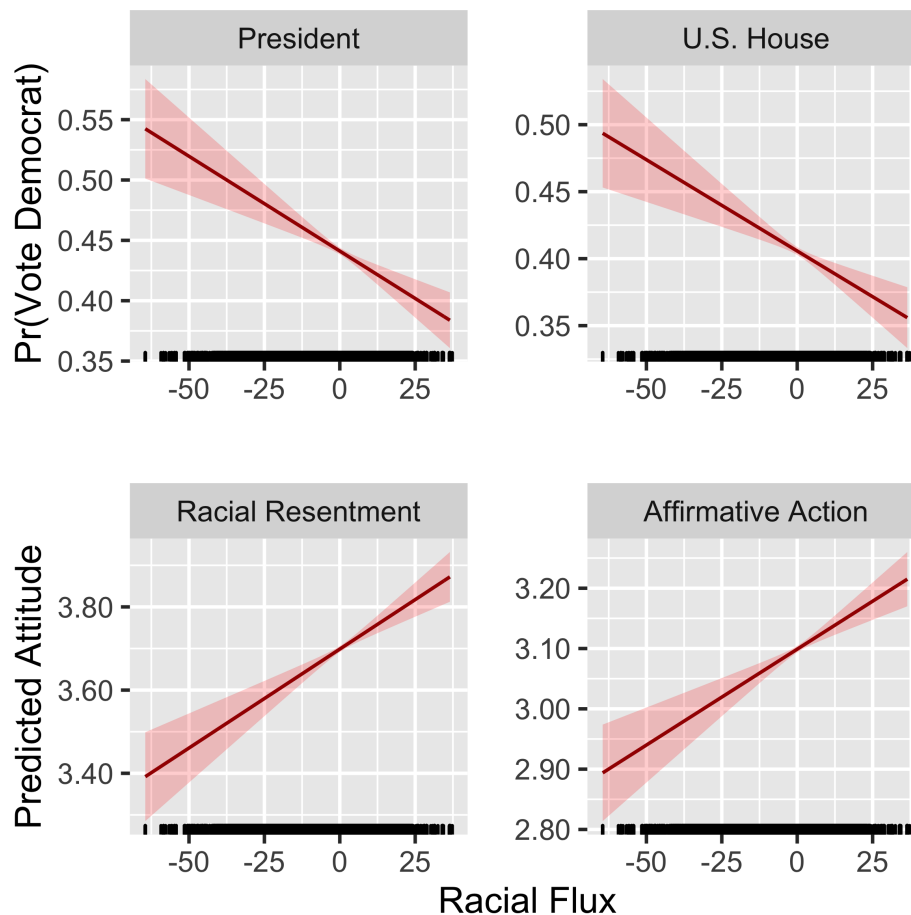
⁷While our main specification includes a variety of contemporary contextual characteristics, we reestimate our model controlling for historical factors, such as past racial segregation, past racial and political conflict, and past racialized economic inequality that may correspond to both contemporary racial flux and white attitudes. Results including these factors are given in Tables A8-A12. Our findings are robust to the inclusion of these factors.

⁸Past work using survey data linked to aggregate contextual data uses OLS (e.g., Oliver and Wong 2003) when using survey data with respondents from many zip codes but few respondents in each zip code. This is because “rules of thumb” generally indicate that there should be at least 50 group (zip codes) with at least 20 respondents in each (Hox 2010). On average, we have about 8 respondents per zip code. Nevertheless, Table A4 in the Appendix reestimates the models in Table 1 using a multilevel linear model with a random intercept for zip codes. The results do not change.

⁹We present all model coefficients in Table A3. The Appendix also includes details about how our dependent and independent variables are measured, as well as the text of the survey questions used to generate these measures.

¹⁰One limitation is that we do not know how much time people spend in their own residential neighborhood. It is likely that many respondents work outside of their own zip code, limiting their direct exposure to an influx of minority workers. We reestimate our models among a set of people more likely to spend time in their community throughout the day: (white) retirees. We find substantively larger associations between racial flux, voting behavior, and racial attitudes among retirees than we do using the full sample. These results are available in Table A7 and Figure A3.

Figure 2: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Predicted Probabilities**



is self-selection. It is difficult to know whether people’s behaviors and preferences change as a function of their environment, or whether the contexts in which they live are simply a reflection of their political and social predispositions. We include a variety host of individual-level and contextual-level covariates in our models as a way to model the selection process, but we of course cannot fully rule out the potentially endogenous nature of the associations we report.

We report the results of three important robustness checks in the Appendix. In Table A5 and Figure A1, we consider whether racial flux predicts non-racial political attitudes. If our main findings reflect the influence of political and social predispositions, and not the influence of context, we would expect racial flux to also be associated with conservative attitudes on

Table 1: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites)**

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	−0.002*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.003*** (0.001)
Intercept	1.195*** (0.080)	0.933*** (0.077)	1.670*** (0.211)	1.615*** (0.153)
Controls	✓	✓	✓	✓
R ²	0.655	0.558	0.404	0.340
Adj. R ²	0.655	0.558	0.404	0.339
Observations	54098	74852	88055	98752
RMSE	0.292	0.326	0.950	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

abortion, climate change, and gun control. We reestimate our model with each of these alternative dependent variables, and find no statistically significant relationships.¹¹ Because we find associations between racial flux and racial attitudes — but not other attitudes — we see our results as suggestive that context shapes attitudes more so than it reflects pre-existing attitudes. Second, in Table A6 and Figure A2, we reestimate our models using only Black respondents. Studies of racial threat see whites as responsive to changes in the minority population, but minorities should not respond in politically similar ways. The results confirms this expectation: we find no evidence of a relationship between racial flux and Black voting behavior or racial attitudes. Finally, we further subset our data to only heavily-white zip codes. When we do so (Tables A13-A15), we find even stronger associations between racial flux, the simple presence of Black workers, and white public opinion. Taken together, these three robustness checks offer additional confirmation that the associations we report reflect real responsiveness to influxes of outgroup workers.

¹¹Question wording on these policies changed over time in the CCES. Models for climate change and gun control use data from 2010 and 2012; the model for abortion uses data from 2014.

3 Conclusion

Using new data from the U.S. Census Bureau, we explore how racial contexts change from day to night, and how changing contexts affect political preferences. Our empirics show, as expected, that racial flux is positively (negatively) correlated with the white (Black) resident population, suggesting that resident-only measures of context may or may not account for. Most importantly, we show that racial flux is associated with more conservative political preferences among whites. That is, whites in neighborhoods that are more diverse during the day than at night, are less likely to vote Democratic, more racially resentful, and less supportive of affirmative action policies than whites living in places with a smaller “gap” between daytime and nighttime diversity. As noted, our findings illustrate the potential strength of context as a driver of political attitudes. Many whites may observe more diversity — and in turn, respond to it — than we might initially have thought. In this way, past empirical work using resident-only measures has really only identified a lower-bound for the impact of context on political attitudes. In this paper, we have done the same, focusing first on measurable differences between worker and resident populations. Undoubtedly, contexts can change through other mechanisms, such as in the kinds of people who patronize the businesses located in a particular area. We see this kind of extension as an obvious next step.

We hesitate to speculate about the mechanisms behind these associations, but our results do suggest that whites see threat in non-resident minority workers just as they see threat in resident minorities. Future work should focus both on establishing more causally-identified relationships, and on uncovering the mechanisms that explain such relationships. For instance, though some work sees racial threat working through symbolic, cultural concerns and not economic anxiety (e.g., Citrin et al. 1997), it seems plausible that economics — and more specifically, labor market competition — could in part explain a relationship between an influx of Black workers and political preferences. Racial outsiders moving into white spaces to earn a living may be seen as more economically threatening than influxes

of minorities who only live in those spaces. In contrast, increases in the minority residential population may induce out-group biases through its effect on the perceived changes to the “fabric” and culture of the residential community.

In the broadest sense, our work speaks to the ongoing study of how to measure context (e.g., Velez and Wong 2017; Wong et al. 2012), and focuses this work in particular on how our measurement strategies affect how we theorize about the impacts of racial on attitudes. For instance, we see our measure as reflecting primarily impersonal and diffuse — though perhaps regular — contact with racial minorities. In contrast, resident-only measures of context may reflect a mix of both impersonal and intimate contact. Intimate contact (with equal status neighbors) is seen as the most conducive for promoting accepting attitudes (Allport 1954). The way we conceive of and measure context therefore impacts the way we think context should influence political behavior.

In light of our findings, we think more work is needed to better understand how context is defined by those who experience it, and how, when, and why the composition of those contexts affect voting behavior and public opinion. Ultimately, we see our work as just one small step in advancing this crucial work on measurement and theory in racial threat, context, and political opinion.

References

- Allport, Gordon W. 1954. *The Nature of Prejudice*. Reading: Addison-Wesley.
- Blalock, Hubert M., Jr. 1967. *Toward a Theory of Minority-Group Relations*. New York: John Wiley & Sons.
- Carsey, Thomas M. 1995. "The Contextual Effects of Race on White Voter Behavior: The 1989 New York City Mayoral Election." *Journal of Politics* 57(1): 221–228.
- Citrin, Jack, Donald P. Green, Christopher Muste, and Cara Wong. 1997. "Public Opinion Toward Immigration Reform: The Role of Economic Motivations." *Journal of Politics* 59(3): 858–881.
- Enos, Ryan D. 2016. "What the Demolition of Public Housing Teaches Us about the Impact of Racial Threat on Political Behavior." *American Journal of Political Science* 60(1): 123–142.
- Goldman, Seth, and Daniel J. Hopkins. 2020. "Past Place, Present Prejudice: The Impact of Adolescent Racial Context on White Racial Attitudes." *Journal of Politics*.
- Hopkins, Daniel J. 2010. "Politicized Places: Explaining Where and When Immigrants Provoke Local Opposition." *American Political Science Review* 104(1): 40–60.
- Hox, Joop J. 2010. *Multilevel Analysis: Techniques and Applications*. New York: Routledge.
- Key, V.O., Jr. 1949. *Southern Politics in State and Nation*. New York: Alfred A. Knopf.
- Mo, Cecilia Hyunjung, and Katharine M. Conn. 2018. "When Do the Advantaged See the Disadvantages of Others? A Quasi-Experimental Study of National Service." *American Political Science Review* 112(4): 721–741.
- Newman, Benjamin J. 2013. "Acculturating Contexts and Anglo Opposition to Immigration in the U.S." *American Journal of Political Science* 57(2): 374–390.
- Oliver, J. Eric. 2010. *The Paradoxes of Integration: Race, Neighborhood, and Civic Life in Multiethnic America*. Chicago: University of Chicago Press.
- Oliver, J. Eric, and Janelle Wong. 2003. "Intergroup Prejudice in Multiethnic Settings." *American Journal of Political Science* 47(4): 567–582.
- Reny, Tyler T., and Benjamin J. Newman. 2018. "Protecting the Right to Discriminate: The Second Great Migration and Racial Threat in the American West." *American Political Science Review* 112(4): 1104–1110.
- Velez, Yamil Ricardo. 2018. "Residential Mobility Constraints and Immigration Restrictionism." *Political Behavior*.
- Velez, Yamil Ricardo, and Grace Wong. 2017. "Assessing Contextual Measurement Strategies." *Journal of Politics* 79(3): 1084–1089.
- Wong, Cara, Jake Bowers, Tarah Williams, and Katherine Drake Simmons. 2012. "Bringing the Person Back In: Boundaries, Perceptions, and the Measurement of Racial

Context.” *Journal of Politics* 74(4): 1153–1170.

Appendix for “Black Workers in White Places: Daytime Racial Diversity and White Public Opinion”

Brian T. Hamel* Bryan Wilcox-Archuleta[†]

October 12, 2020

*Ph.D. Candidate, Department of Political Science, University of California, Los Angeles, 4289 Bunche Hall, Los Angeles, CA 90095-1472 (bhamel@ucla.edu)

[†]Independent Researcher (wilcox.bryan.m@gmail.com)

Table of Contents

1	Examples and Correlates of Racial Flux	4
2	Measurement	6
2.1	Dependent Variables	6
2.2	Independent Variables	7
3	Main Model	9
4	Main Model: Multilevel Model with Random Intercept for Zip Code	11
5	Robustness Check: Non-Racial Attitudes	12
6	Robustness Check: Blacks	14
7	Robustness Check: Retired Whites	16
8	Robustness Check: Controlling for Past Racial Tensions	18
9	Robustness Check: Subsetting to Heavily White Neighborhoods	24

List of Figures

A1	Racial Flux, Voting Behavior, and Non-Racial Attitudes (Whites) — Predicted Probabilities	13
A2	Racial Flux, Voting Behavior, and Racial Attitudes (Blacks) — Pre- dicted Probabilities	15
A3	Racial Flux, Voting Behavior, and Racial Attitudes (Retired Whites) — Predicted Probabilities	17

List of Tables

A1	Examples of Racial Flux	4
A2	Multivariate Correlates of Racial Flux	5
A3	Racial Flux, Voting Behavior, and Racial Attitudes (Whites)	9
A4	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Multilevel Model	11
A5	Racial Flux and Non-Racial Attitudes (Whites)	12
A6	Racial Flux, Voting Behavior, and Racial Attitudes (Blacks)	14
A7	Racial Flux, Voting Behavior, and Racial Attitudes (Retired Whites)	16
A8	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Racial Segregation in 1990	19
A9	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Racial Segregation in 2000	20

A10	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Past Racial and Political Conflict	21
A11	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for the Racial Income Gap in 1990	22
A12	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for the Racial Income Gap in 2000	23
A13	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > Median	25
A14	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > 75th Percentile	26
A15	Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > 90th Percentile	27

1 Examples and Correlates of Racial Flux

We selected six zip codes across the U.S. Three of these zip codes have positive racial flux values (in New York, Dallas, and Tallahassee), and three have negative values of racial flux (in Cincinnati, Aurora, and Los Angeles). Table A1 gives detailed information about the composition of each. Consider the 10023 zip code in New York’s Upper West Side, one of the more white neighborhoods in the city. The percent white residential population in the 10023 is about 77%. The percent Black residential population (as given in the LODES data) is only 6%. But racial flux is about 15 percentage points, meaning that the work population is about 15 percentage points “more Black” than the residential population. Indeed, about 21% of the workforce in NYC’s 10023 zip code is Black. We see similar differences in Dallas and Tallahassee. Los Angeles’ 90008 is quite different. The 90008 contains Crenshaw Boulevard, a well-known African-American commerce area and home to many other non-white racial and ethnic groups. Crenshaw Boulevard is an area studied extensively by others interested in context and behavior (Enos 2017). The 90008 is overwhelmingly Black: about 61% of the residential population is Black. The Black work population is much smaller, though. Only about 39% of workers in the 90008 are Black, suggesting a significant decrease in racial diversity across work and residential populations.

Table A1: **Examples of Racial Flux**

Zip	City	% White Res. Pop.	% Black Work Pop.	% Black Res. Pop.	Racial Flux
10023	New York, NY	76.73	20.72	5.90	14.82
32312	Tallahassee, FL	77.61	17.70	11.85	5.85
75206	Dallas, TX	62.51	15.29	8.47	6.82
45215	Cincinnati, OH	60.76	12.79	21.95	-9.16
80012	Aurora, CO	34.90	10.38	22.82	-12.44
90008	Los Angeles, CA	2.03	38.81	61.06	-22.25

Table A2: **Multivariate Correlates of Racial Flux**

	(1)
% White	0.009*** (0.001)
% Black	-0.322*** (0.006)
% Unemployed	0.004 (0.009)
% College	0.061*** (0.006)
log(Per Capita Income)	0.890*** (0.182)
Gini Coef.	0.361 (0.695)
South	3.659*** (0.103)
Non-Rural	0.259** (0.083)
log(Pop. Density)	0.196*** (0.021)
Intercept	-11.151*** (1.712)
R ²	0.427
Adj. R ²	0.427
Observations	31686
RMSE	5.636

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

2 Measurement

2.1 Dependent Variables

- *Racial Resentment A*: The Irish, Italians, Jews and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.

1 = Strongly disagree
2 = Somewhat disagree
3 = Neither agree nor disagree
4 = Somewhat agree
5 = Strongly agree

- *Racial Resentment B*: Generations of slavery and discrimination have created conditions that make it difficult for Blacks to work their way out of the lower class.

1 = Strongly agree
2 = Somewhat agree
3 = Neither agree nor disagree
4 = Somewhat disagree
5 = Strongly disagree

Our racial resentment measure takes the average of *Racial Resentment A* and *Racial Resentment B*.

- *Affirmative Action*: Affirmative action programs give preference to racial minorities in employment and college admissions in order to correct for past discrimination. Do you support or oppose affirmative action?

1 = Strongly support
2 = Somewhat support
3 = Somewhat oppose
4 = Strongly oppose

- *Abortion*: Do you support or oppose the following proposal? . . . Always allow a woman to obtain an abortion as a matter of choice.

1 = Against
2 = For

- *Climate Change*: From what you know about global climate change or global warming, which one of the following statements comes closest to your opinion?

1 = Global climate change has been established as a serious problem, and immediate action is necessary.

2 = There is enough evidence that climate change is taking place and some action should be taken.

3 = We don't know enough about global climate change, and more research is necessary before taking any actions.

4 = Concern about global climate change is exaggerated. No action is necessary.

5 = Global climate change is not occurring; this is not a real issue.

- *Gun Control*: In general, do you feel that the laws covering the sale of firearms should be made more strict, less strict, or kept as they are?

1 = More strict

2 = Kept as they are

3 = More strict

2.2 Independent Variables

- *Party Identification*: Generally speaking, do you think of yourself as a . . . ?

1 = Strong Democrat

2 = Not very strong Democrat

3 = Lean Democrat

4 = Independent

5 = Lean Republican

6 = Not very strong Republican

7 = Strong Republican

- *Ideology*: In general, how would you describe your own political viewpoint?

1 = Very liberal

2 = Liberal

3 = Moderate

4 = Conservative

5 = Very conservative

- *Family Income*: Thinking back over the last year, what was your family's annual income?

1 = Less than \$10,000

2 = \$10,000 - \$20,000

3 = \$20,000 - \$30,000

4 = \$30,000 - \$40,000

5 = \$40,000 - \$50,000

6 = \$50,000 - \$60,000

7 = \$60,000 - \$70,000

8 = \$70,000 - \$80,000

9 = \$80,000 - \$100,000

10 = \$100,000 - \$120,000

11 = \$120,000 - \$150,000

12 = \$150,000+

- *Education:* What is the highest level of education you have completed?

1 = Less than high school

2 = High school

3 = Some college

4 = 2-year college

5 = 4-year college

6 = Post-graduate

3 Main Model

Table A3: Racial Flux, Voting Behavior, and Racial Attitudes (Whites)

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	−0.002*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.003*** (0.001)
Party ID	−0.138*** (0.001)	−0.116*** (0.001)	0.138*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.094*** (0.002)	0.387*** (0.005)	0.266*** (0.004)
Female	0.019*** (0.003)	0.011*** (0.003)	0.005 (0.007)	−0.051*** (0.006)
Age	−0.000** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)
Family Income	0.001* (0.000)	−0.000 (0.000)	−0.005*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.005*** (0.001)	−0.124*** (0.003)	−0.052*** (0.002)
% White	0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Black	−0.001** (0.000)	0.000 (0.000)	0.003*** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.000 (0.001)	0.004** (0.001)	0.004*** (0.001)
% College	0.001* (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.003 (0.008)	0.017* (0.008)	0.117*** (0.022)	0.060*** (0.016)
Gini Coef.	0.030 (0.030)	0.074* (0.030)	−0.904*** (0.079)	−0.629*** (0.058)
South	−0.018*** (0.004)	−0.063*** (0.004)	0.084*** (0.009)	0.042*** (0.007)
Non-Rural	−0.005 (0.007)	−0.020** (0.006)	0.017 (0.017)	0.016 (0.013)
log(Pop. Density)	0.005*** (0.001)	0.005*** (0.001)	0.003 (0.003)	−0.001 (0.002)
Intercept	1.195*** (0.080)	0.933*** (0.077)	1.670*** (0.211)	1.615*** (0.153)
R ²	0.655	0.558	0.404	0.340
Adj. R ²	0.655	0.558	0.404	0.339
Observations	54098	74852	88055	98752
RMSE	0.292	0.326	0.950	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

4 Main Model: Multilevel Model with Random Intercept for Zip Code

Table A4: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites)** — Multilevel Model

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	−0.002*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.003*** (0.001)
Party ID	−0.138*** (0.001)	−0.115*** (0.001)	0.138*** (0.002)	0.113*** (0.002)
Ideology	−0.090*** (0.002)	−0.093*** (0.002)	0.385*** (0.004)	0.265*** (0.003)
Female	0.019*** (0.003)	0.012*** (0.002)	0.003 (0.007)	−0.052*** (0.005)
Age	−0.000** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)
Family Income	0.001* (0.000)	−0.000 (0.000)	−0.005*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.005*** (0.001)	−0.122*** (0.002)	−0.051*** (0.002)
% White	0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Black	−0.001** (0.000)	0.000 (0.000)	0.003*** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.000 (0.000)	0.004** (0.001)	0.004*** (0.001)
% College	0.001* (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.005 (0.008)	0.015 (0.008)	0.112*** (0.021)	0.059*** (0.016)
Gini Coef.	0.023 (0.030)	0.067* (0.030)	−0.868*** (0.076)	−0.612*** (0.057)
South	−0.019*** (0.004)	−0.062*** (0.004)	0.085*** (0.009)	0.044*** (0.007)
Non-Rural	−0.005 (0.007)	−0.020** (0.006)	0.018 (0.017)	0.017 (0.013)
log(Pop. Density)	0.005*** (0.001)	0.005*** (0.001)	0.003 (0.003)	−0.001 (0.002)
Intercept	1.177*** (0.079)	0.950*** (0.078)	1.703*** (0.201)	1.611*** (0.151)
AIC	20416.399	44316.340	240622.079	229201.932
BIC	20585.472	44491.582	240800.408	229382.439
# of Individuals	54098	74852	88055	98752
# of Zip Codes	14451	16261	17244	17861

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

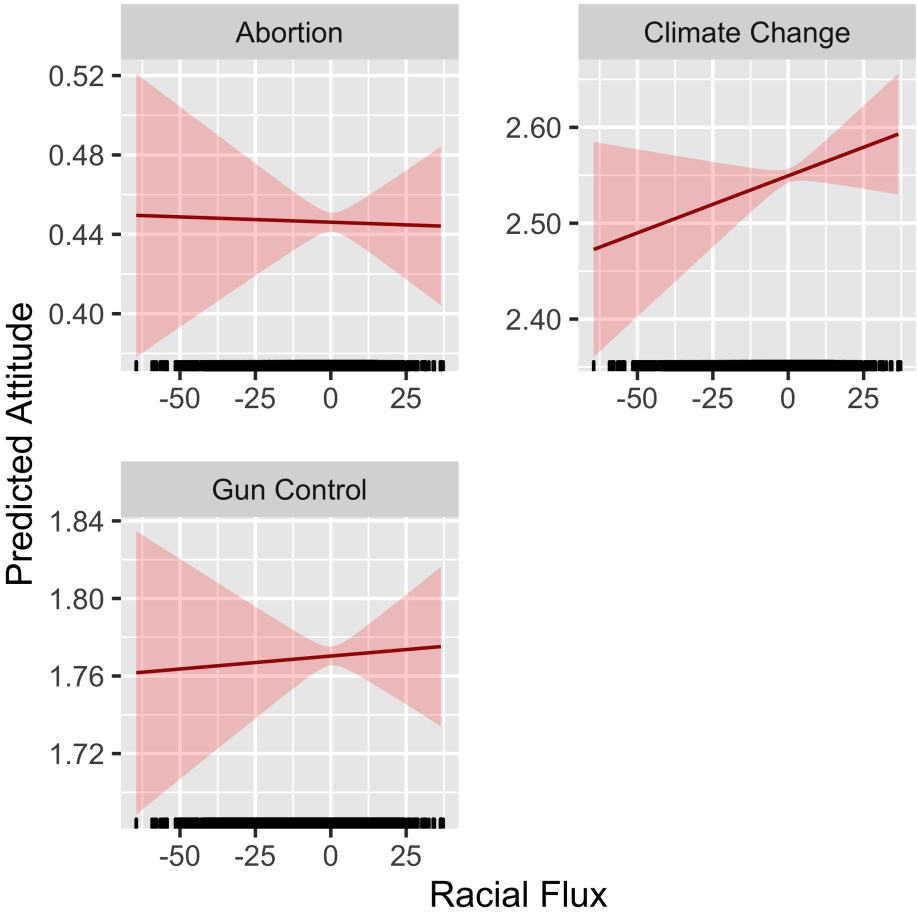
5 Robustness Check: Non-Racial Attitudes

Table A5: **Racial Flux and Non-Racial Attitudes (Whites)**

	<i>Abortion</i>	<i>Climate Change</i>	<i>Gun Control</i>
Racial Flux	−0.000 (0.001)	0.001 (0.001)	0.000 (0.001)
Party ID	0.046*** (0.002)	0.189*** (0.003)	0.081*** (0.002)
Ideology	0.144*** (0.003)	0.429*** (0.005)	0.188*** (0.003)
Female	−0.022*** (0.005)	−0.123*** (0.007)	−0.231*** (0.005)
Age	0.000 (0.000)	0.001* (0.000)	−0.004*** (0.000)
Family Income	−0.007*** (0.001)	0.007*** (0.001)	−0.003*** (0.001)
Education	0.013*** (0.002)	−0.022*** (0.003)	−0.009*** (0.002)
% White	0.001*** (0.000)	0.000 (0.000)	−0.001*** (0.000)
% Black	0.001** (0.000)	0.001 (0.001)	−0.002*** (0.000)
% Unemployed	−0.007*** (0.001)	−0.002 (0.001)	0.002** (0.001)
% College	0.000 (0.001)	−0.001 (0.001)	−0.001* (0.001)
log(Per Capita Income)	−0.124*** (0.014)	−0.060** (0.021)	−0.038** (0.014)
Gini Coef.	0.079 (0.051)	−0.273*** (0.077)	−0.095 (0.051)
South	0.010 (0.006)	−0.001 (0.010)	−0.006 (0.006)
Non-Rural	0.019 (0.013)	0.012 (0.018)	−0.012 (0.012)
log(Pop. Density)	−0.011*** (0.002)	−0.014*** (0.003)	−0.035*** (0.002)
Intercept	1.061*** (0.134)	1.276*** (0.203)	1.980*** (0.133)
R ²	0.272	0.496	0.334
Adj. R ²	0.272	0.496	0.334
Observations	32763	65795	65869
RMSE	0.421	0.906	0.596

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure A1: **Racial Flux, Voting Behavior, and Non-Racial Attitudes (Whites) — Predicted Probabilities**



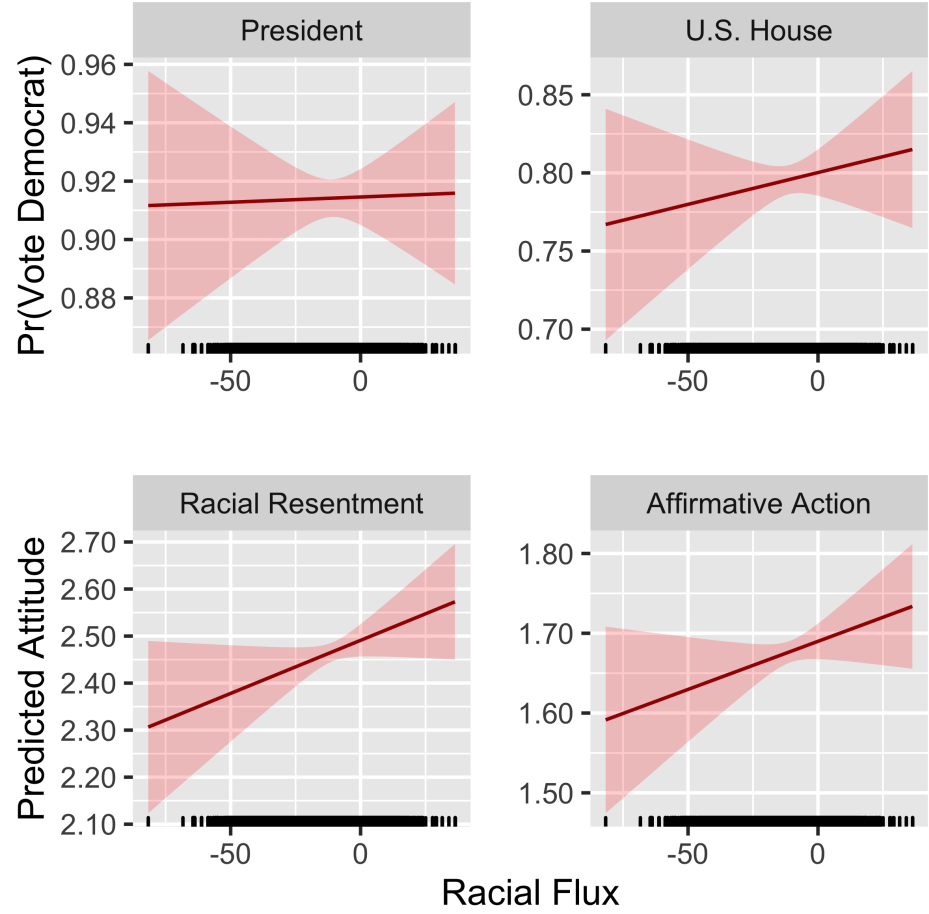
6 Robustness Check: Blacks

Table A6: Racial Flux, Voting Behavior, and Racial Attitudes (Blacks)

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	0.000 (0.000)	0.000 (0.001)	0.002 (0.001)	0.001 (0.001)
Party ID	-0.092*** (0.004)	-0.104*** (0.004)	0.105*** (0.008)	0.148*** (0.006)
Ideology	-0.024*** (0.003)	-0.033*** (0.004)	0.183*** (0.011)	0.101*** (0.007)
Female	0.004 (0.006)	0.015 (0.008)	0.061** (0.022)	0.007 (0.014)
Age	-0.001*** (0.000)	0.000 (0.000)	-0.003*** (0.001)	-0.004*** (0.000)
Family Income	-0.001 (0.001)	-0.002 (0.001)	-0.013*** (0.004)	-0.003 (0.002)
Education	0.004 (0.002)	0.003 (0.003)	-0.103*** (0.008)	-0.043*** (0.005)
% White	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.001)	-0.001 (0.000)
% Black	0.000 (0.000)	0.002*** (0.000)	0.001 (0.001)	-0.001 (0.001)
% Unemployed	0.000 (0.001)	0.000 (0.001)	-0.005 (0.003)	-0.001 (0.002)
% College	0.000 (0.001)	0.002 (0.001)	-0.006* (0.003)	-0.002 (0.002)
log(Per Capita Income)	-0.007 (0.020)	0.001 (0.028)	0.042 (0.063)	-0.015 (0.043)
Gini Coef.	-0.092 (0.059)	-0.077 (0.089)	0.284 (0.210)	0.197 (0.142)
South	0.004 (0.008)	-0.078*** (0.012)	0.083** (0.026)	-0.020 (0.017)
Non-Rural	-0.056*** (0.015)	-0.043 (0.038)	0.066 (0.091)	-0.003 (0.064)
log(Pop. Density)	0.008** (0.003)	0.005 (0.004)	0.002 (0.010)	-0.014* (0.007)
Intercept	1.273*** (0.199)	1.047*** (0.279)	1.769** (0.632)	1.755*** (0.428)
R ²	0.270	0.212	0.101	0.116
Adj. R ²	0.269	0.211	0.100	0.115
Observations	6963	8646	10897	15738
RMSE	0.223	0.347	0.968	0.783

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure A2: **Racial Flux, Voting Behavior, and Racial Attitudes (Blacks) — Predicted Probabilities**



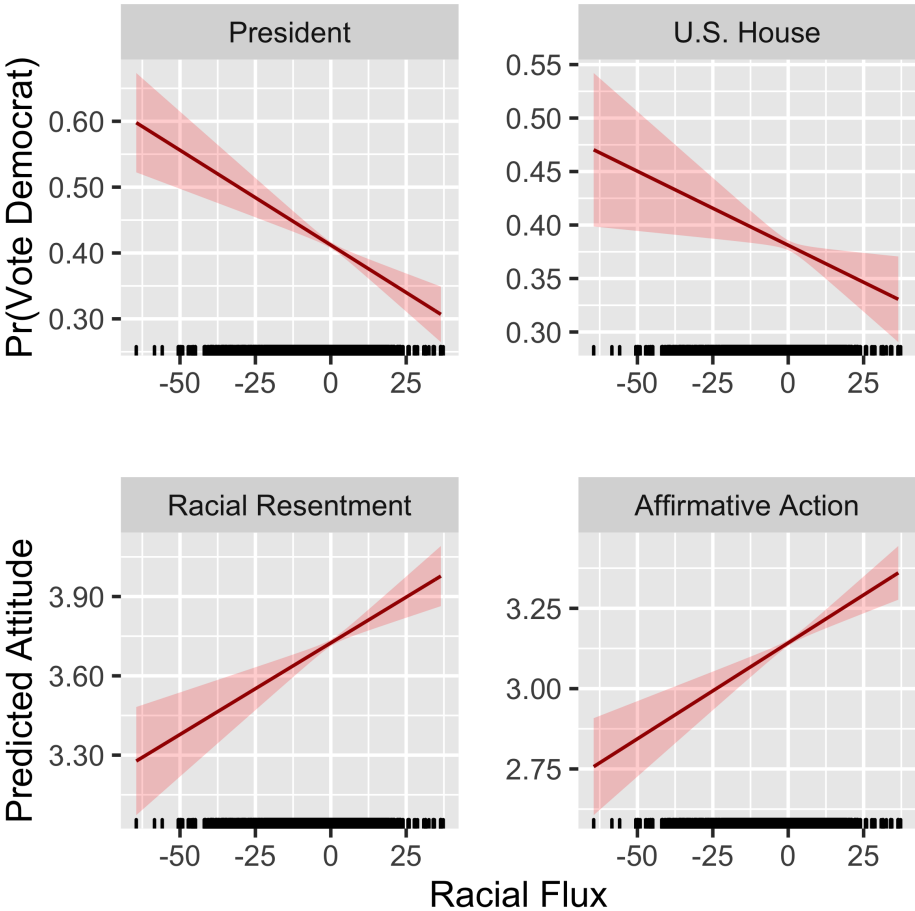
7 Robustness Check: Retired Whites

Table A7: Racial Flux, Voting Behavior, and Racial Attitudes (Retired Whites)

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	−0.003*** (0.001)	−0.001* (0.001)	0.007*** (0.002)	0.006*** (0.001)
Party ID	−0.139*** (0.002)	−0.117*** (0.002)	0.141*** (0.004)	0.113*** (0.003)
Ideology	−0.091*** (0.003)	−0.092*** (0.003)	0.407*** (0.009)	0.306*** (0.007)
Female	0.020*** (0.005)	0.020*** (0.005)	−0.075*** (0.013)	−0.070*** (0.010)
Age	−0.001* (0.000)	−0.000 (0.000)	−0.011*** (0.001)	−0.004*** (0.001)
Family Income	0.001 (0.001)	0.001 (0.001)	−0.014*** (0.002)	0.004* (0.002)
Education	0.007*** (0.002)	0.006*** (0.002)	−0.123*** (0.005)	−0.063*** (0.004)
% White	0.000 (0.000)	−0.000 (0.000)	0.001 (0.000)	0.000 (0.000)
% Black	−0.001*** (0.000)	−0.000 (0.000)	0.004*** (0.001)	0.003*** (0.001)
% Unemployed	0.001 (0.001)	0.000 (0.001)	0.004* (0.002)	0.004** (0.002)
% College	0.001* (0.001)	0.000 (0.001)	−0.006*** (0.001)	−0.003** (0.001)
log(Per Capita Income)	−0.005 (0.015)	0.017 (0.014)	0.066 (0.038)	0.035 (0.029)
Gini Coef.	−0.030 (0.052)	0.102* (0.050)	−0.746*** (0.138)	−0.581*** (0.105)
South	−0.010 (0.006)	−0.061*** (0.006)	0.063*** (0.016)	0.026* (0.012)
Non-Rural	0.001 (0.012)	−0.017 (0.010)	−0.033 (0.029)	−0.051* (0.022)
log(Pop. Density)	0.005** (0.002)	0.004* (0.002)	0.007 (0.005)	0.006 (0.004)
Intercept	1.320*** (0.142)	0.944*** (0.132)	2.636*** (0.370)	1.967*** (0.284)
R ²	0.688	0.566	0.436	0.399
Adj. R ²	0.688	0.566	0.436	0.398
Observations	16656	23294	25094	27333
RMSE	0.277	0.321	0.913	0.733

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure A3: **Racial Flux, Voting Behavior, and Racial Attitudes (Retired Whites)**
— Predicted Probabilities



8 Robustness Check: Controlling for Past Racial Tensions

We may be concerned that our results reflect racialized social, cultural, political, and economic hierarchies that have tended to exist historically in contexts that may be high in racial flux today. If so, whites in these contexts may express racial animus because of a long-standing culture and legacy of racial tension between Blacks and whites (i.e., racial insiders and outsiders) rather than in direct response to contemporary influxes of Black workers. To mitigate these concerns, we reestimate our main model but include controls for past racial segregation, past racial and political conflict, and past racialized economic inequality. We do so as follows:

- *Past Racial Segregation*: In Tables A7 and A8, we control for county and zip-code racial segregation. Table A7 controls for segregation in 1990, and Table A8 controls for segregation in 2000. Our measure uses data from each decennial Census to calculate a dissimilarity index. The dissimilarity index is a common measure of residential segregation that captures the evenness with which Blacks and whites are distributed in space. It tells us the percentage of residents in a small geographic area who would need to move to different areas within a larger geographic unit in order to produce a racial distribution in the smaller area that matches that of the larger area. Values range from 0 (complete integration) to 100 (complete segregation). Our county-level measure thus relates counties to states, and our zip code level measure relates zip codes to counties.
- *Past Racial and Political Conflict*: In Table A9, we control for two historical political features at the county-level: support for Goldwater in 1964, and an indicator for whether a civil rights protest was held in the respondents county between 1960 and 1965 (Mazumder 2018). Goldwater’s 1964 “states rights” campaign was widely viewed as anti-Black, and as a vehicle for white supremacy, particularly in the South. In contrast, civil rights protests and demonstrations were meant to push back on racial injustices. These two measures should capture additional historical differences in race relations in different geographic areas in ways that may not be picked up by contemporary neighborhood characteristics.
- *Past Racialized Economic Inequality*: In Tables A10 and A11, we control for the county and zip code level racial gap in per capita income between whites and Blacks. Table A10 controls for the county and zip code level gaps in 1990, and Table A11 does the same for data from 2000. In both cases, the data are from the decennial Census. The measure is simply the difference in log per capita income between whites and Blacks. Positive (negative) values indicate higher income among whites (Blacks).

Table A8: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Racial Segregation in 1990**

	<i>President</i>		<i>U.S. House</i>		<i>Racial Resentment</i>		<i>Affirmative Action</i>	
Racial Flux	−0.002*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Party ID	−0.137*** (0.001)	−0.138*** (0.001)	−0.116*** (0.001)	−0.116*** (0.001)	0.137*** (0.002)	0.137*** (0.002)	0.113*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.091*** (0.002)	−0.095*** (0.002)	−0.095*** (0.002)	0.387*** (0.005)	0.388*** (0.005)	0.265*** (0.004)	0.266*** (0.004)
Female	0.019*** (0.003)	0.018*** (0.003)	0.013*** (0.003)	0.011*** (0.003)	0.005 (0.008)	0.004 (0.007)	−0.051*** (0.006)	−0.052*** (0.006)
Age	−0.000** (0.000)	−0.000** (0.000)	0.000*** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Family Income	0.001 (0.001)	0.001* (0.000)	−0.001 (0.000)	−0.001 (0.000)	−0.005*** (0.001)	−0.005*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	−0.124*** (0.003)	−0.124*** (0.003)	−0.053*** (0.002)	−0.052*** (0.002)
% White	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Black	−0.001** (0.000)	−0.001** (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.003*** (0.001)	0.003*** (0.000)	0.001** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.005*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.005*** (0.001)
% College	0.001* (0.000)	0.001* (0.000)	0.001 (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.011*** (0.001)	−0.005*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.002 (0.009)	0.004 (0.008)	0.020* (0.008)	0.019* (0.008)	0.116*** (0.023)	0.117*** (0.022)	0.055** (0.017)	0.060*** (0.016)
Gini Coef.	0.031 (0.032)	0.030 (0.030)	0.065* (0.032)	0.071* (0.030)	−0.897*** (0.084)	−0.903*** (0.079)	−0.618*** (0.062)	−0.631*** (0.058)
South	−0.018*** (0.004)	−0.018*** (0.004)	−0.060*** (0.004)	−0.064*** (0.004)	0.082*** (0.010)	0.087*** (0.009)	0.044*** (0.007)	0.045*** (0.007)
Non-Rural	−0.008 (0.008)	−0.005 (0.007)	−0.027*** (0.007)	−0.021** (0.006)	0.041* (0.019)	0.018 (0.017)	0.034* (0.015)	0.018 (0.013)
log(Pop. Density)	0.006*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.003 (0.003)	0.003 (0.003)	−0.000 (0.002)	−0.001 (0.002)
Zipcode Dissimilarity	−0.009 (0.014)		−0.015 (0.010)		−0.009 (0.028)		−0.004 (0.023)	
County Dissimilarity		−0.001 (0.000)		−0.001** (0.000)		0.001 (0.001)		0.001 (0.001)
Intercept	1.200*** (0.085)	1.193*** (0.080)	0.908*** (0.081)	0.921*** (0.077)	1.656*** (0.222)	1.654*** (0.212)	1.630*** (0.163)	1.605*** (0.154)
R ²	0.654	0.655	0.559	0.559	0.405	0.404	0.339	0.340
Adj. R ²	0.654	0.655	0.559	0.558	0.405	0.404	0.339	0.339
Observations	49656	53856	68597	74493	80819	87643	90596	98291
RMSE	0.293	0.292	0.327	0.326	0.951	0.950	0.775	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A9: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Racial Segregation in 2000**

	<i>President</i>		<i>U.S. House</i>		<i>Racial Resentment</i>		<i>Affirmative Action</i>	
Racial Flux	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Party ID	−0.138*** (0.001)	−0.138*** (0.001)	−0.116*** (0.001)	−0.116*** (0.001)	0.137*** (0.002)	0.137*** (0.002)	0.113*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.091*** (0.002)	−0.095*** (0.002)	−0.094*** (0.002)	0.387*** (0.005)	0.387*** (0.005)	0.266*** (0.004)	0.266*** (0.004)
Female	0.018*** (0.003)	0.018*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.006 (0.007)	0.004 (0.007)	−0.050*** (0.006)	−0.051*** (0.006)
Age	−0.000** (0.000)	−0.000** (0.000)	0.000*** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Family Income	0.001* (0.001)	0.001* (0.000)	−0.001 (0.000)	−0.000 (0.000)	−0.005*** (0.001)	−0.005*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	−0.124*** (0.003)	−0.124*** (0.003)	−0.052*** (0.002)	−0.052*** (0.002)
% White	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Black	−0.001** (0.000)	−0.001** (0.000)	0.000 (0.000)	−0.000 (0.000)	0.003*** (0.000)	0.003*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.004** (0.001)	0.004** (0.001)	0.004*** (0.001)	0.004*** (0.001)
% College	0.001* (0.000)	0.001* (0.000)	0.001 (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.011*** (0.001)	−0.004*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.003 (0.008)	0.004 (0.008)	0.019* (0.008)	0.018* (0.008)	0.112*** (0.022)	0.116*** (0.022)	0.060*** (0.016)	0.059*** (0.016)
Gini Coef.	0.028 (0.031)	0.028 (0.030)	0.063* (0.031)	0.072* (0.030)	−0.893*** (0.081)	−0.902*** (0.079)	−0.612*** (0.059)	−0.628*** (0.058)
South	−0.017*** (0.004)	−0.019*** (0.004)	−0.063*** (0.004)	−0.064*** (0.004)	0.085*** (0.009)	0.086*** (0.009)	0.043*** (0.007)	0.043*** (0.007)
Non-Rural	−0.010 (0.008)	−0.005 (0.007)	−0.029*** (0.007)	−0.021*** (0.006)	0.038* (0.019)	0.017 (0.017)	0.027 (0.014)	0.017 (0.013)
log(Pop. Density)	0.006*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.003 (0.003)	0.003 (0.003)	−0.001 (0.002)	−0.001 (0.002)
Zipcode Dissimilarity	0.013* (0.006)		0.005 (0.008)		−0.021 (0.022)		−0.026 (0.020)	
County Dissimilarity		−0.001* (0.000)		−0.001*** (0.000)		0.001 (0.001)		0.001 (0.001)
Intercept	1.197*** (0.082)	1.191*** (0.080)	0.920*** (0.078)	0.925*** (0.077)	1.704*** (0.215)	1.673*** (0.211)	1.593*** (0.157)	1.617*** (0.153)
R ²	0.655	0.655	0.558	0.558	0.403	0.404	0.339	0.339
Adj. R ²	0.655	0.655	0.558	0.558	0.403	0.404	0.339	0.339
Observations	52693	54071	72900	74806	85821	88004	96209	98699
RMSE	0.293	0.292	0.327	0.326	0.950	0.950	0.773	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A10: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for Past Racial and Political Conflict**

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
Racial Flux	−0.002*** (0.000)	−0.002*** (0.000)	0.005*** (0.001)	0.003*** (0.001)
Party ID	−0.138*** (0.001)	−0.138*** (0.001)	0.138*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.091*** (0.002)	0.387*** (0.005)	0.266*** (0.004)
Female	0.018*** (0.003)	0.018*** (0.003)	0.003 (0.007)	−0.052*** (0.006)
Age	−0.000* (0.000)	−0.000* (0.000)	−0.002*** (0.000)	−0.001*** (0.000)
Family Income	0.001 (0.001)	0.001 (0.001)	−0.005*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.004*** (0.001)	−0.124*** (0.003)	−0.052*** (0.002)
% White	0.000 (0.000)	0.000 (0.000)	0.001*** (0.000)	0.001** (0.000)
% Black	−0.000* (0.000)	−0.000* (0.000)	0.003*** (0.001)	0.001** (0.000)
% Unemployed	0.001 (0.001)	0.001 (0.001)	0.004** (0.001)	0.004*** (0.001)
% College	0.001 (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.005*** (0.001)
log(Per Capita Income)	0.006 (0.009)	0.006 (0.009)	0.117*** (0.023)	0.068*** (0.016)
Gini Coef.	0.029 (0.031)	0.029 (0.031)	−0.906*** (0.081)	−0.627*** (0.059)
South	−0.021*** (0.004)	−0.021*** (0.004)	0.094*** (0.010)	0.043*** (0.007)
Non-Rural	−0.004 (0.007)	−0.004 (0.007)	0.020 (0.017)	0.015 (0.013)
log(Pop. Density)	0.005*** (0.001)	0.005*** (0.001)	−0.001 (0.003)	−0.001 (0.002)
Support for Goldwater	0.000 (0.000)	0.000 (0.000)	−0.001 (0.000)	0.000 (0.000)
Civil Rights Protest	0.002 (0.003)	0.002 (0.003)	0.032*** (0.009)	0.007 (0.007)
Intercept	1.148*** (0.083)	1.148*** (0.083)	1.713*** (0.219)	1.535*** (0.160)
R ²	0.656	0.656	0.405	0.341
Adj. R ²	0.656	0.656	0.405	0.341
Observations	51689	51689	84123	94354
RMSE	0.292	0.292	0.948	0.771

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A11: Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for the Racial Income Gap in 1990

	<i>President</i>		<i>U.S. House</i>		<i>Racial Resentment</i>		<i>Affirmative Action</i>	
Racial Flux	−0.002*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Party ID	−0.137*** (0.001)	−0.138*** (0.001)	−0.116*** (0.001)	−0.116*** (0.001)	0.138*** (0.002)	0.137*** (0.002)	0.113*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.091*** (0.002)	−0.094*** (0.002)	−0.095*** (0.002)	0.387*** (0.005)	0.388*** (0.005)	0.265*** (0.004)	0.266*** (0.004)
Female	0.019*** (0.003)	0.019*** (0.003)	0.013*** (0.003)	0.011*** (0.003)	0.005 (0.008)	0.005 (0.007)	−0.051*** (0.006)	−0.051*** (0.006)
Age	−0.000** (0.000)	−0.000** (0.000)	0.000*** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Family Income	0.001 (0.001)	0.001* (0.000)	−0.001 (0.000)	−0.000 (0.000)	−0.005*** (0.001)	−0.005*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	−0.124*** (0.003)	−0.124*** (0.003)	−0.053*** (0.002)	−0.052*** (0.002)
% White	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001** (0.000)
% Black	−0.001** (0.000)	−0.000* (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.003*** (0.001)	0.003*** (0.000)	0.001** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.005*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.004*** (0.001)
% College	0.001* (0.000)	0.001* (0.000)	0.001 (0.000)	0.000 (0.000)	−0.011*** (0.001)	−0.011*** (0.001)	−0.005*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.002 (0.009)	0.003 (0.008)	0.021* (0.008)	0.018* (0.008)	0.117*** (0.023)	0.118*** (0.022)	0.056*** (0.017)	0.061*** (0.016)
Gini Coef.	0.030 (0.032)	0.032 (0.030)	0.064* (0.032)	0.079** (0.030)	−0.905*** (0.084)	−0.905*** (0.079)	−0.624*** (0.062)	−0.622*** (0.058)
South	−0.018*** (0.004)	−0.018*** (0.004)	−0.060*** (0.004)	−0.062*** (0.004)	0.081*** (0.010)	0.084*** (0.009)	0.043*** (0.007)	0.042*** (0.007)
Non-Rural	−0.008 (0.008)	−0.007 (0.007)	−0.024*** (0.007)	−0.019** (0.006)	0.035 (0.019)	0.017 (0.017)	0.029 (0.015)	0.014 (0.013)
log(Pop. Density)	0.006*** (0.001)	0.005*** (0.001)	0.006*** (0.001)	0.005*** (0.001)	0.002 (0.003)	0.003 (0.003)	−0.001 (0.002)	−0.001 (0.002)
Zip Code White-Black Income Gap	0.000 (0.001)		0.001 (0.001)		−0.002 (0.001)		−0.002* (0.001)	
County White-Black Income Gap		−0.002 (0.001)		0.001 (0.001)		0.003 (0.003)		−0.001 (0.003)
Intercept	1.195*** (0.085)	1.197*** (0.080)	0.896*** (0.081)	0.925*** (0.077)	1.662*** (0.222)	1.654*** (0.212)	1.639*** (0.163)	1.602*** (0.154)
R ²	0.654	0.655	0.559	0.559	0.405	0.404	0.339	0.340
Adj. R ²	0.654	0.655	0.559	0.559	0.405	0.404	0.339	0.340
Observations	49651	53949	68586	74644	80808	87794	90583	98443
RMSE	0.293	0.292	0.327	0.326	0.951	0.950	0.775	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A12: Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — Controlling for the Racial Income Gap in 2000

	<i>President</i>		<i>U.S. House</i>		<i>Racial Resentment</i>		<i>Affirmative Action</i>	
Racial Flux	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	0.005*** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Party ID	−0.138*** (0.001)	−0.138*** (0.001)	−0.116*** (0.001)	−0.116*** (0.001)	0.137*** (0.002)	0.138*** (0.002)	0.113*** (0.002)	0.113*** (0.002)
Ideology	−0.091*** (0.002)	−0.091*** (0.002)	−0.095*** (0.002)	−0.094*** (0.002)	0.387*** (0.005)	0.387*** (0.005)	0.266*** (0.004)	0.266*** (0.004)
Female	0.018*** (0.003)	0.018*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.006 (0.007)	0.005 (0.007)	−0.050*** (0.006)	−0.051*** (0.006)
Age	−0.000** (0.000)	−0.000** (0.000)	0.000*** (0.000)	0.000*** (0.000)	−0.002*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Family Income	0.001* (0.001)	0.001* (0.000)	−0.001 (0.000)	−0.000 (0.000)	−0.005*** (0.001)	−0.005*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Education	0.004*** (0.001)	0.004*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	−0.124*** (0.003)	−0.124*** (0.003)	−0.052*** (0.002)	−0.052*** (0.002)
% White	0.000 (0.000)	0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Black	−0.001** (0.000)	−0.001** (0.000)	0.000 (0.000)	0.000 (0.000)	0.003*** (0.000)	0.003*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
% Unemployed	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.004** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)
% College	0.001* (0.000)	0.001* (0.000)	0.001 (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.011*** (0.001)	−0.004*** (0.001)	−0.004*** (0.001)
log(Per Capita Income)	0.002 (0.008)	0.003 (0.008)	0.019* (0.008)	0.017* (0.008)	0.114*** (0.022)	0.117*** (0.022)	0.062*** (0.016)	0.060*** (0.016)
Gini Coef.	0.031 (0.031)	0.031 (0.030)	0.064* (0.031)	0.072* (0.030)	−0.898*** (0.080)	−0.911*** (0.079)	−0.618*** (0.059)	−0.628*** (0.058)
South	−0.017*** (0.004)	−0.018*** (0.004)	−0.063*** (0.004)	−0.063*** (0.004)	0.085*** (0.009)	0.084*** (0.009)	0.043*** (0.007)	0.042*** (0.007)
Non-Rural	−0.007 (0.008)	−0.005 (0.007)	−0.025*** (0.007)	−0.019** (0.006)	0.034 (0.019)	0.020 (0.017)	0.024 (0.014)	0.015 (0.013)
log(Pop. Density)	0.006*** (0.001)	0.005*** (0.001)	0.006*** (0.001)	0.005*** (0.001)	0.002 (0.003)	0.003 (0.003)	−0.001 (0.002)	−0.001 (0.002)
Zip Code White-Black Income Gap	0.001 (0.001)		0.001 (0.001)		−0.002 (0.002)		−0.001 (0.001)	
County White-Black Income Gap		−0.002 (0.002)		0.002 (0.002)		0.007 (0.005)		−0.000 (0.004)
Intercept	1.198*** (0.082)	1.197*** (0.080)	0.919*** (0.078)	0.931*** (0.077)	1.699*** (0.215)	1.660*** (0.211)	1.586*** (0.157)	1.613*** (0.154)
R ²	0.655	0.655	0.558	0.558	0.403	0.404	0.339	0.339
Adj. R ²	0.655	0.655	0.558	0.558	0.403	0.404	0.339	0.339
Observations	52689	54081	72896	74823	85817	88024	96203	98719
RMSE	0.293	0.292	0.327	0.326	0.950	0.950	0.773	0.772

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

9 Robustness Check: Subsetting to Heavily White Neighborhoods

A second concern may be that our main model makes an inappropriate statistical comparison. In experimental terms, we may think of our ideal treatment group as whites living in heavily-white zip codes that see an influx of Black workers. In our main model, our control group includes whites living in non-white zip codes who see an influx of white, or non-white, workers. Below we subset our data to whites living in zip codes that are above the median % white, above the 75th percentile % white, and above the 90th percentile % white, and test how the simple presence of Black workers affects white public opinion. Doing so allows us to compare whites who live in similar racial environments but who differ in the presence of Black workers.

Table A13: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > Median**

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
% Black Workers	−0.002*** (0.001)	−0.001* (0.001)	0.006*** (0.001)	0.004*** (0.001)
Party ID	−0.137*** (0.001)	−0.116*** (0.001)	0.132*** (0.003)	0.107*** (0.002)
Ideology	−0.094*** (0.003)	−0.100*** (0.002)	0.384*** (0.006)	0.264*** (0.005)
Female	0.021*** (0.004)	0.008* (0.003)	−0.016 (0.009)	−0.061*** (0.007)
Age	−0.000 (0.000)	0.001*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)
Family Income	0.002** (0.001)	0.000 (0.001)	−0.005** (0.002)	0.008*** (0.001)
Education	0.004** (0.001)	0.006*** (0.001)	−0.123*** (0.003)	−0.053*** (0.003)
% White	0.000 (0.000)	0.000 (0.000)	0.003*** (0.001)	0.002** (0.001)
% Black	0.001 (0.001)	0.001 (0.001)	0.005* (0.002)	0.001 (0.001)
% Unemployed	0.000 (0.001)	−0.000 (0.001)	0.004* (0.002)	0.004** (0.001)
% College	0.000 (0.000)	0.001 (0.000)	−0.011*** (0.001)	−0.005*** (0.001)
log(Per Capita Income)	0.011 (0.011)	0.018 (0.011)	0.115*** (0.029)	0.075*** (0.021)
Gini Coef.	0.002 (0.041)	0.028 (0.040)	−0.777*** (0.108)	−0.545*** (0.078)
South	−0.017** (0.006)	−0.058*** (0.006)	0.051*** (0.013)	0.024* (0.010)
Non-Rural	−0.016* (0.008)	−0.024*** (0.007)	0.020 (0.019)	0.014 (0.015)
log(Pop. Density)	0.006*** (0.002)	0.003* (0.002)	0.003 (0.004)	0.003 (0.003)
Intercept	1.130*** (0.111)	0.940*** (0.107)	1.456*** (0.291)	1.365*** (0.209)
R ²	0.647	0.556	0.390	0.324
Adj. R ²	0.647	0.556	0.390	0.324
Observations	32369	44825	52513	58795
RMSE	0.295	0.326	0.945	0.766

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A14: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > 75th Percentile**

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
% Black Workers	−0.003** (0.001)	−0.002* (0.001)	0.007** (0.002)	0.004* (0.002)
Party ID	−0.137*** (0.002)	−0.116*** (0.002)	0.128*** (0.004)	0.100*** (0.003)
Ideology	−0.094*** (0.004)	−0.102*** (0.003)	0.368*** (0.008)	0.257*** (0.006)
Female	0.023*** (0.005)	0.006 (0.005)	−0.030* (0.013)	−0.064*** (0.010)
Age	0.000 (0.000)	0.001*** (0.000)	−0.003*** (0.000)	−0.002*** (0.000)
Family Income	0.001 (0.001)	−0.000 (0.001)	−0.003 (0.002)	0.008*** (0.002)
Education	0.003 (0.002)	0.007*** (0.002)	−0.123*** (0.005)	−0.049*** (0.003)
% White	−0.000 (0.001)	−0.001 (0.001)	0.005* (0.002)	0.000 (0.002)
% Black	0.001 (0.002)	−0.001 (0.002)	0.008 (0.005)	−0.002 (0.004)
% Unemployed	−0.000 (0.001)	−0.001 (0.001)	0.003 (0.002)	0.004** (0.001)
% College	0.000 (0.001)	0.001 (0.001)	−0.012*** (0.001)	−0.006*** (0.001)
log(Per Capita Income)	0.034* (0.017)	0.019 (0.015)	0.095* (0.042)	0.060* (0.030)
Gini Coef.	−0.004 (0.060)	−0.023 (0.054)	−0.590*** (0.148)	−0.478*** (0.110)
South	−0.020* (0.008)	−0.045*** (0.009)	0.045* (0.019)	0.012 (0.015)
Non-Rural	−0.009 (0.009)	−0.023** (0.008)	0.017 (0.022)	0.005 (0.017)
log(Pop. Density)	0.003 (0.002)	0.002 (0.002)	0.015** (0.006)	0.011** (0.004)
Intercept	0.969*** (0.184)	1.079*** (0.170)	1.480** (0.463)	1.657*** (0.342)
R ²	0.631	0.551	0.361	0.294
Adj. R ²	0.630	0.550	0.360	0.294
Observations	16531	22928	27067	30263
RMSE	0.300	0.326	0.938	0.765

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table A15: **Racial Flux, Voting Behavior, and Racial Attitudes (Whites) — % White > 90th Percentile**

	<i>President</i>	<i>U.S. House</i>	<i>Racial Resentment</i>	<i>Affirmative Action</i>
% Black Workers	−0.006** (0.002)	−0.006** (0.002)	0.007 (0.004)	0.010** (0.003)
Party ID	−0.135*** (0.003)	−0.135*** (0.003)	0.121*** (0.006)	0.097*** (0.005)
Ideology	−0.098*** (0.006)	−0.098*** (0.006)	0.360*** (0.012)	0.245*** (0.010)
Female	0.022** (0.008)	0.022** (0.008)	−0.015 (0.020)	−0.078*** (0.015)
Age	−0.000 (0.000)	−0.000 (0.000)	−0.003*** (0.001)	−0.002** (0.001)
Family Income	0.001 (0.002)	0.001 (0.002)	−0.005 (0.004)	0.006* (0.003)
Education	−0.000 (0.003)	−0.000 (0.003)	−0.116*** (0.007)	−0.047*** (0.006)
% White	−0.003 (0.003)	−0.003 (0.003)	0.011 (0.007)	−0.005 (0.005)
% Black	−0.001 (0.007)	−0.001 (0.007)	0.033* (0.016)	−0.017 (0.012)
% Unemployed	0.002 (0.001)	0.002 (0.001)	0.001 (0.002)	0.002 (0.002)
% College	0.000 (0.001)	0.000 (0.001)	−0.011*** (0.002)	−0.006*** (0.002)
log(Per Capita Income)	0.064* (0.028)	0.064* (0.028)	0.029 (0.063)	0.058 (0.047)
Gini Coef.	−0.038 (0.090)	−0.038 (0.090)	−0.265 (0.208)	−0.185 (0.162)
South	−0.014 (0.014)	−0.014 (0.014)	0.051 (0.034)	−0.002 (0.024)
Non-Rural	−0.017 (0.012)	−0.017 (0.012)	0.017 (0.029)	0.004 (0.022)
log(Pop. Density)	0.001 (0.004)	0.001 (0.004)	0.021* (0.009)	0.012 (0.007)
Intercept	1.006** (0.385)	1.006** (0.385)	1.462 (0.931)	2.136** (0.703)
R ²	0.617	0.617	0.341	0.273
Adj. R ²	0.616	0.616	0.340	0.272
Observations	6580	6580	10876	12179
RMSE	0.305	0.305	0.933	0.767

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

References

- Enos, Ryan D. 2017. *The Space Between Us: Social Geography and Politics*. New York: Cambridge University Press.
- Mazumder, Soumyajit. 2018. “The Persistent Effect of U.S. Civil Rights Protests on Political Attitudes.” *American Journal of Political Science* 62(4): 922–935.