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Replication of Hamel & Wilcox-Archuleta (2022): "Black Workers in White Places: Daytime Racial Diversity and White Public Opinion"

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Replication of Hamel & Wilcox-Archuleta (2022): "Black Workers in White Places: Daytime Racial Diversity and White Public Opinion"*

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March 1, 2024

Abstract

In this replication study, we revisit the main empirical claims of Hamel and Wilcox-Archuleta's (HW) 2022 study on the impact of daytime racial diversity on White Americans' voting behavior and racial attitudes. HW introduce a novel zip code level measure of racial diversity that accounts for the influx of Black workers during daytime, showing that conventional purely residential based measures often underestimate the true degree of experienced racial diversity. Using survey data from the CCES, their findings suggest a negative correlation between racial flux and White Americans' Democratic voting tendencies and a positive correlation with racial resentment and opposition to affirmative action, all while controlling for the residential share of Blacks in the zip code. We assess the replicability of these findings by: (1) replicating the main results using the provided replication code, (2) reconstructing the racial flux measure and survey from raw data, (3) conducting multiverse analyses, and (4) replicating the analysis using an alternative data source. Our replication validates the robustness and accuracy of HW's initial conclusions, emphasizing the role of daytime racial diversity in shaping White Americans' political and racial attitudes.

KEYWORDS: Racial Diversity, Racial Attitudes, Voting Behavior
JEL CODES: D72, J15

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1 Introduction

In this short replication paper, we replicate the main results (Table 1) of Hamel and Wilcox-Archuleta's (HW, hereafter) 2022 *Journal of Politics* study "Black Workers in White Places: Daytime Racial Diversity and White Public Opinion" (Hamel and Wilcox-Archuleta 2022). In this study, HW ask how contact with out-groups affects voting behavior and racial attitudes among White Americans. Starting with the observation that "residents are not the only ones who occupy a geographic space" (1828), they argue that previous studies have overly relied on resident-based measures of racial diversity, overlooking the effect that in- and out-flows of out-group workers have on daytime racial diversity.

To address this shortcoming, HW construct an additional measure of racial diversity that estimates the differential between the share of Black workers and the share of Black residents on the basis of data provided by the US Census.[1] Positive levels of racial flux indicate that racial diversity during the daytime, driven by influxes of Black workers, is greater than purely resident-based measures would suggest. In fact, as they demonstrate in Figure 1, this underestimation tends to be greatest in primarily "White" areas, that is, in areas in which the residential population is least diverse.

HW are interested in how their new measure correlates with voting behavior (voting in presidential and house elections), racial resentment, and support for affirmative action among White respondents, holding the share of Black residents in a zip code constant. To examine this, HW use data from the (cross-sectional) Congressional Cooperative Election Study (CCES) for the years 2010, 2012, and 2014, which contains individual-level survey data for around 50,000 respondents each wave. Using this data and controlling for a host of covariates (described in more detail in their paper), they show that a one point increase in racial flux is associated with (a) a 0.002 percentage point reduction in voting for Democratic candidate in a presidential election, (b) a 0.001 percentage point reduction in voting for the Democratic candidate in a house election, (c) a 0.005 point increase in racial resentment (5-point scale) and 0.003 increase in opposition to affirmative action (4-point scale).[2] All of these estimates are statistically significant at the $p < .001$ level. In this replication study, we consider these associations HW's main empirical claims.

To examine the replicability of these claims, we focus on four things: First,

[1] More specifically, they use data on the number of workers and residents by ethnicity on census tract level provided by the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES). They then aggregate this data to the zip code level and calculate the share of Black individuals among all workers/residents.

[2] Table 1 in HW.

we use HW's supplied replication code and data to re-estimate their main result from Table 1, which shows negative correlations between racial flux and Democratic voting (in presidential and house) and positive correlations with racial resentment and opposition to affirmative action. Here, we show that the supplied code and data *exactly* reproduce the results from the paper.

Second, we use raw data sources from the CCES and the US Census to reconstruct (a) the survey HW use in their estimation and (b) the racial flux measure that is used as the main independent variable. Here, we show that our reconstructed measure on the basis of the raw data maps very closely onto HW's measure ($\rho = .990$). Using this measure together with the reconstructed CCES data, we show that estimates derived on this basis yield identical results to HW, even though the number of included observations differs.

Third, we conduct multiverse analyses that examine how changes in the choice of included covariates affect the results (Young and Holsteen 2017), considering all possible covariate combinations and plotting the overall distributions of the coefficients of racial flux. Here, we find that the specific choice of covariates does not seem to drive the main results. Rather, almost any combination of covariates yields results that are comparable in sign and statistical significance to the ones obtained by HW.

Lastly, we use an alternative data source – the Nationscape Survey – to re-estimate the main results on the basis of comparable data for the US. Overall, the results we obtain in this replication are very close to the main results obtained in HW's original article.

2 Reproducibility

We used the original authors' R code in order to reproduce their primary analyses.[3] We did not observe any coding errors in the original R code. We were able to reproduce the results presented in the original authors' Table 1 / Table A3 ("Racial Flux, Voting Behavior, and Racial Attitudes (Whites)") and Figure 2 ("Racial flux, voting behavior, and racial attitudes (Whites) - predicted probabilities") using their main code.[4] Please see Table 1 in the present paper for a comparison of their original data (HW Table A3) and our replication.

[3]Hamel and Wilcox-Archuleta's data and R code can be found here: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/FMOR6K.

[4]Code can be found here: https://dataverse.harvard.edu/file.xhtml?fileId=4757465&version=3.0.

Table 1: Racial Flux, Voting Behavior, and Racial Attitudes (Whites), Original (Table A3) and Replication Results

	Original				Replication			
	President	*U.S. House*	*Racial Resentment*	*Affirmative Action*	*President*	*U.S. House*	*Racial Resentment*	*Affirmative Action*
Racial Flux	−0.002***	−0.001***	0.005***	0.003***	−0.002***	−0.001***	0.005***	0.003***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Party ID	−0.138***	−0.116***	0.138***	0.113***	−0.138***	−0.116***	0.138***	0.113***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
Ideology	−0.091***	−0.094***	0.387***	0.266***	−0.091***	−0.094***	0.387***	0.266***
	(0.002)	(0.002)	(0.005)	(0.004)	(0.002)	(0.002)	(0.005)	(0.004)
Female	0.019***	0.011***	0.005	−0.051***	0.019***	0.011***	0.005	−0.051***
	(0.003)	(0.003)	(0.007)	(0.006)	(0.003)	(0.003)	(0.007)	(0.006)
Age	−0.000**	0.000***	−0.002***	−0.001***	−0.000**	0.000***	−0.002***	−0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Family Income	0.001*	−0.000	−0.005***	0.007***	0.001*	−0.000	−0.005***	0.007***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Education	0.004***	0.005***	−0.124***	−0.052***	0.004***	0.005***	−0.124***	−0.052***
	(0.001)	(0.001)	(0.003)	(0.002)	(0.001)	(0.001)	(0.003)	(0.002)
% White	0.000	−0.000	0.001***	0.001***	0.000	−0.000	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Black	−0.001**	0.000	0.003***	0.001***	−0.001**	0.000	0.003***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Unemployed	0.001	0.000	0.004**	0.004***	0.001	0.000	0.004**	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% College	0.001*	0.001	−0.011***	−0.004***	0.001*	0.001	−0.011***	−0.004***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
log(Per Capita Income)	0.003	0.017*	0.117***	0.060***	0.003	0.017*	0.117***	0.060***
	(0.008)	(0.008)	(0.022)	(0.016)	(0.008)	(0.008)	(0.022)	(0.016)
Gini Coef.	0.030	0.074*	−0.904***	−0.629***	0.030	0.074*	−0.904***	−0.629***
	(0.030)	(0.030)	(0.079)	(0.058)	(0.030)	(0.030)	(0.079)	(0.058)
South	−0.018***	−0.063***	0.084***	0.042***	−0.018***	−0.063***	0.084***	0.042***
	(0.004)	(0.004)	(0.009)	(0.007)	(0.004)	(0.004)	(0.009)	(0.007)
Non-Rural	−0.005	−0.020**	0.017	0.016	−0.005	−0.020**	0.017	0.016
	(0.007)	(0.006)	(0.017)	(0.013)	(0.007)	(0.006)	(0.017)	(0.013)
log(Pop. Density)	0.005***	0.005***	0.003	−0.001	0.005***	0.005***	0.003	−0.001
	(0.001)	(0.001)	(0.003)	(0.002)	(0.001)	(0.001)	(0.003)	(0.002)
Intercept	1.195***	0.933***	1.670***	1.615***	1.195***	0.933***	1.670***	1.615***
	(0.080)	(0.077)	(0.211)	(0.153)	(0.080)	(0.077)	(0.211)	(0.153)
R^2	0.655	0.558	0.404	0.340	0.655	0.558	0.404	0.340
Adj. R^2	0.655	0.558	0.404	0.339	0.655	0.558	0.404	0.339
Observations	54098	74852	88055	98752	54098	74852	88055	98752
RMSE	0.292	0.326	0.950	0.772	0.292	0.326	0.950	0.772
N Clusters	14451	16261	17244	17861	Not Reported	Not Reported	Not Reported	Not Reported

Note: This table shows the results of re-running HW's R code for Table A3 in their Appendix (with minor edits to the code, such as allowing for opening the data file from a different location). All models are OLS regressions. Included variables are identical to the ones used by HW. Standard Errors clustered by zip code in parentheses. RMSE = Root Mean Square Error. $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

3 Reconstructing Survey Data and Racial Flux Measure

We continue our replication by reconstructing a large part of the data used by HW. HW rely on two primary data sources. First, they draw on data from the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) to construct their measure of racial flux. Second, they use the 2010, 2012, and 2014 waves of the Cooperative Congressional Election Study (CCES) – now known as "Cooperative Election Study" – for survey data that contains information on vote choice, respondent zip code, and a range of individual-level characteristics. We download those raw data sources, follow their steps outlined in the paper, and construct new datasets that we use for robustness analyses. We remark that HW use a set of local area variables (eg such as (log) population density) in their estimation that we explicitly *do not* reproduce; we take those variables directly from HW's dataset. As in HW, all models are linear regressions with standard errors clustered at the zip code level.

3.1 Reconstructing Racial Flux

HW construct their racial flux measure on the basis of the US Census' LODES7 data.[5] Racial flux is calculated as the difference between the share of Black workers and the share of Black residents. In this light, racial flux is aimed to describe the differences in racial diversity between day- and night-time. For example, a zip code that has a low share of Black residents, but a high share of Black workers, is described to have positive racial flux.

The LODES data contains three file types that are needed to construct this measure: Crosswalks, Resident Area Characteristics (RAC), and Workplace Area Characteristics (WAC). The RAC and WAC files contain information on the racial composition of the (working) resident population (RAC) and the racial composition of the working population (WAC) on the census tract level by indicating the number of individuals of each group that live in each tract.[6] Following HW, we download these files for each state for the years 2010 to 2014 and aggregate worker and resident numbers to the zip code level for each year using the crosswalk files that map census tracts to zip codes. To calculate the share of Black workers and Black residents in each zip code for each year, we divide the number of all Black respondents (`CR02`: Black and African American alone) by the number of total workers (`C0000`: Total number of jobs). We then subtract the share of Black residents from the share of

[5] Data can be found here: https://lehd.ces.census.gov/data/lodes/

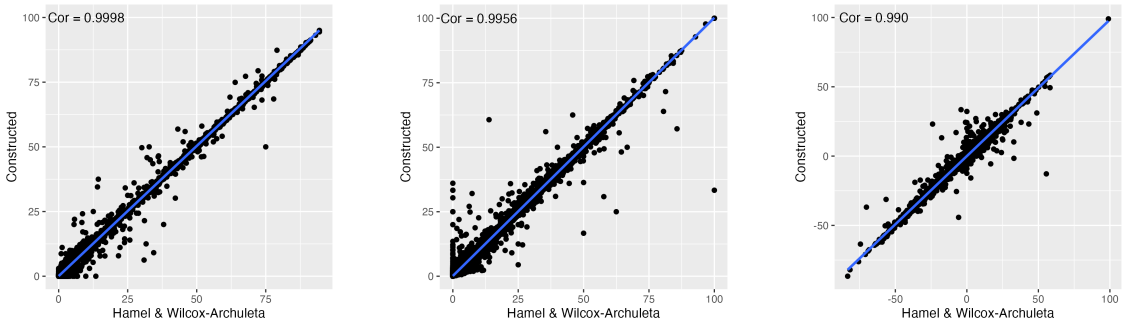
[6] As remarked in footnote two in HW, the LODES data is restricted to working individuals. This means that we do not observe all people who live in a zip code, but only people who live in a zip code and are also employed.

Black workers and average those values within zip codes across years, giving us our measure of racial flux.

Having reconstructed the racial flux measure, we do three things: First, we compare our estimates for the share of Black persons in the resident and working population, as well as our measure of racial flux to HW's estimates that we take from their replication material. As depicted in Figure 1, our estimates are *very* similar. While there are occasional deviations that might be due to a multitude of reasons (coding decisions, LODES updates), the correlation between our and HW's estimates for the racial flux measure is very high ($\rho = .990$). Second, we use HW's replication data and substitute our reconstructed measure for their racial flux measure before reestimating their main results from Table 1 (using their code). In our Table 2, we compare HW's original results to our results using the new measure, showing estimates for all specifications are, as we would expect given the high correlation, basically identical. Third, we also reconstruct the CCES data (described below) and use our reconstructed measure as the main independent variable in this estimation. The replication code for our measure is available in the Supplement.

Overall, replicating HW's analysis in this way yields almost identical results, despite the fact that intercepts, number of clusters, and observations differ. While these differences might stem from a multitude of reasons, it is reassuring that the results are virtually unaffected by any of those.

Figure 1: Reconstructed Diversity Measures



(a) Black Share Residents (b) Black Share Workers (c) Racial Flux

Note: This figure shows the correlation between our estimates for shares of black workers, black residents, and racial flux with HW's estimates.

3.2 Reconstructing CCES Data

HW use the 2010, 2012, and 2014 waves of the Congressional Cooperative Election Study (CCES) to estimate the relationship between racial flux and support for Democratic presidential/house candidates, racial resentment, and support for affirmative action. The CCES contains zip codes for respondents, allowing researchers

Table 2: Replication Using Reconstructed Racial Flux Measure

	pres		house		rr		affirm	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
(Intercept)	1.241***	1.241***	0.975***	0.933***	1.636***	1.670***	1.579***	1.615***
	(0.106)	(0.104)	(0.078)	(0.077)	(0.214)	(0.211)	(0.156)	(0.153)
	$p = 0.000$	$p = 0.000$	$p = 0.002$	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$
racial_flux_constructed	−0.002***		−0.001***		0.005***		0.003***	
	(0.000)		(0.000)		(0.001)		(0.001)	
	$p = 0.000$		$p = 0.000$		$p = 0.000$		$p = 0.000$	
racial_flux		−0.002***		−0.001***		0.005***		0.003***
		(0.000)		(0.000)		(0.001)		(0.001)
		$p = 0.000$		$p = 0.000$		$p = 0.000$		$p = 0.000$
R^2	0.663	0.662	0.559	0.558	0.403	0.404	0.338	0.340
Adj. R^2	0.662	0.662	0.559	0.558	0.403	0.404	0.338	0.339
Num. obs.	25937	26553	73165	74852	86076	88055	96536	98752
RMSE	0.288	0.289	0.326	0.326	0.948	0.950	0.772	0.772
N Clusters	11009	11292	15870	16261	16843	17244	17452	17861

Note: This table shows the results of re-estimating HW main models using our reconstructed racial flux measure (but otherwise their data). All models are OLS regressions. Included variables are identical to the ones used by HW. The results in this table should be compared to Table 1 in HW. Standard Errors clustered by zip code in parentheses. $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

to combine this survey data with local-level covariates (such as racial flux).

Our approach to reconstructing the CCES data is straightforward. We download the 2010, 2012, and 2014 waves from the Harvard Dataverse, select all variables contained in HW's data and combine the different waves into one dataframe.[7] Included variables and their coding are displayed in Table 3. As mentioned above, HW include local-level variables such as log population density or log per capita income that we do not reconstruct, partly because they are not the main point of the paper and partly because the data sources and level of measurement are not entirely clear to us.

Table 3: CCES Variables Included in the Estimation

Variable Name	**Object Type**	**Note**
year	Numeric	{2010, 2012, 2014}
case_id	Character	
zipcode	Character	
county_fips	Character	
party identification	Numeric	Discrete 1–7
ideology	Numeric	Discrete 1–5
female	Numeric	Binary
faminc	Numeric	Discrete 1–12
white	Numeric	Binary
black	Numeric	Binary
age	Numeric	Discrete
education	Numeric	Discrete 1–6
dem president	Numeric	Binary
dem cand house	Numeric	Binary
affirm	Numeric	Discrete 1–4
mean_rr	Numeric	Mean of two discrete 1–5

Combining our freshly coded CCES data with our racial flux measure, we re-estimate the main results in Table 1 from HW's article, the results of which are displayed in Table **??**. In this analysis, we obtain very similar coefficients for all four dependent variables, both in terms of substantiveness and in terms of statistical significance. The only difference is in the significance level for Models 7 and 8, where our coefficient is only significant at $p < .01$, rather than HW's $p < .001$.

4 Multiverse Analyses

Moving beyond the basic quality standard of sheer computational reproducibility, we next sought to examine the robustness of the previous findings, broadly defined here as "the sensitivity of empirical results to credible changes in model specification" (Young and Holsteen 2017, 4). In particular, our interest focused on the

[7] Data can be found here: https://dataverse.harvard.edu/dataverse/cces.

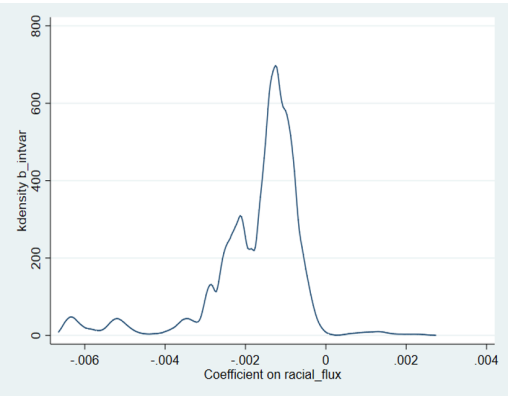
Table 4: Replication Using Reconstructed CCES and Racial Flux Data

	pres		house		rr		affirm	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
(Intercept)	1.375***	1.241***	0.790**	0.933***	1.934***	1.670***	1.283***	1.615***
	(0.248)	(0.104)	(0.247)	(0.077)	(0.224)	(0.211)	(0.210)	(0.153)
	$p = 0.000$	$p = 0.000$	$p = 0.002$	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$
racial_flux_constructed	−0.002***		−0.001**		0.004***		0.003**	
	(0.000)		(0.000)		(0.001)		(0.001)	
	$p = 0.000$		$p = 0.002$		$p = 0.000$		$p = 0.001$	
racial_flux		−0.002***		−0.001***		0.005***		0.003***
		(0.000)		(0.000)		(0.001)		(0.001)
		$p = 0.000$		$p = 0.000$		$p = 0.000$		$p = 0.000$
R^2	0.683	0.662	0.698	0.558	0.417	0.404	0.383	0.340
Adj. R^2	0.683	0.662	0.697	0.558	0.417	0.404	0.382	0.339
Num. obs.	29500	26553	26632	74852	65000	88055	37878	98752
RMSE	0.279	0.289	0.272	0.326	0.926	0.950	0.726	0.772
N Clusters	11623	11292	11060	16261	15759	17244	13004	17861

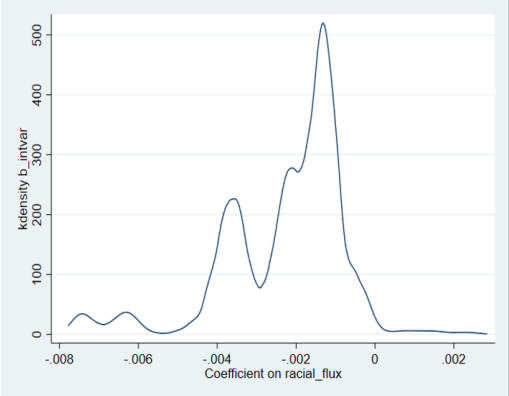
Note: This table shows the results of re-estimating HW main models using our reconstructed CCES and racial flux data. All models are OLS regressions. Included variables are identical to the ones used by HW. The results in this table should be compared to Table 1 in HW. Standard Errors clustered by zip code in parentheses. $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

question if any combinations of the covariates (Cinelli et al. 2022) used by Hamel and Wilcox-Archuleta (2022) at the individual- and local-level might unexpectedly affect the relationships between the key independent variable "racial flux" and the various dependent variables. Based on the same data as in the original study, we, therefore, conducted a multiverse analysis (Young and Holsteen 2017, Simonsohn et al. 2020, Steegen et al. 2016). Using the Stata ado `mrobust` (Young and Holsteen 2016), we estimate for each of the four dependent variables in total 32,768 different model specifications. For each of the dependent variables, the Figure 2 shows the distribution of the regression slopes associated with the effect of the "racial flux" measure. In each subfigure, the x-axis depicts the size of the regression slopes across the model specifications. The y-axis depicts the frequency and density of each slope value. A higher density indicates a higher relative frequency of the respective regression slope.

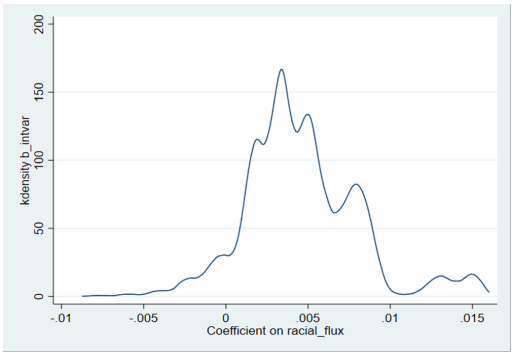
Figure 2: Racial Flux Coefficient Distributions (Multiverse Analyses)



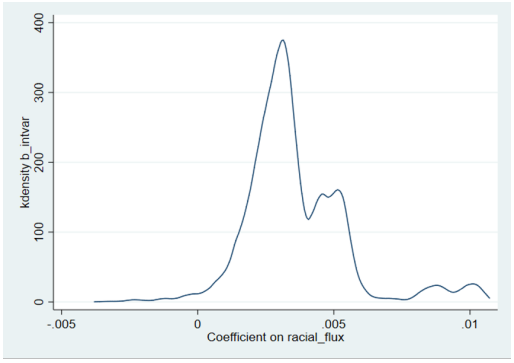
(a) Vote Democratic (Presidential)



(b) Vote Democratic (House)



(c) Racial Resentment



(d) Affirmative Action

Note: This figure shows the coefficient distributions for multiverse analyses of the four main models in HW's Table 1. In total, we estimate 32,768 OLS regression models for each outcome variable. Standard errors are clustered on zip code level.

We first consider the effect of racial flux on White respondents' support for Democratic candidates for president. Table 5 shows that for White respondents' support for Democratic candidates for president, the multiverse analysis yields a

Table 5: Multiverse-analyses based sign stabilities and significance rates

	Dependent Variable			
	President	US House	Resentment	Affirm
Sign stability	99%	99%	93%	99%
Significance rate	93%	93%	89%	96%

Note: Results based on 32,768 model specifications for each dependent variable. The shares indicate how many percent of model combinations yield significant results.

negative regression coefficient associated with the measure of 'racial flux' in 99 percent of all model specifications. This effect was statistically significant in 93 percent of all models. The table further reveals that in terms of sign stability and significance rate, the corresponding results for the remaining dependent variables are very similar. Collectively, this pattern of findings indicates that the negative effect of racial flux documented in the original study should be considered very robust against the inclusion or exclusion of specific model covariates.

5 Nationscape Sample

In the original study, HW use data compiled by the CCES from 2010-2014. To see whether these results are robust to sample selection, we reestimate the main results using the *Nationscape* dataset (Tausanovitch et al. 2019). Nationscape is a large public opinion survey commissioned by the Democracy Fund and political scientists at UCLA and was fielded daily between July 2019 and February 2021. The advantage of this data is that it contains all individual-level covariates included in HW's estimation, as well as zip codes that allow us to assign local-level covariates to each observation.

We use this data and reestimate HW's main models, using Democratic vote intention (house and 2020 presidential) and racial resentment proxies as dependent variables.[8]

In terms of covariates, we use a largely identical set to the one used by HW. We take individual-level covariates from Nationscape and again use HW local-level covariates that we merge onto the data on the basis of zip codes. For racial flux, we do not reconstruct the measure using LODES data from the years of the survey

[8]For racial resentment, we use (dis)agreement with the questions `tryhard`: "Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors", `marry`: "I prefer that my close relatives marry spouses from their same race", `date`: "I think it's alright for blacks and whites to date each other", and `generations`: "Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class". The answer categories for these questions range from Strongly disagree (1) to Strongly agree (5), which is identical to the verbal labels of the scale used by HW. To put all questions on the same scale and to let higher values indicate greater racial resentment, we reverse the scale for the latter two questions.

because the underlying data is not available for all states for that period. Instead, we use HW's racial flux measure, operating under the assumption that racial flux does not change substantially over the short term and that the effects of extended exposure to racial flux do not immediately evaporate.

Table 6 shows the results of the re-estimation using Nationscape data, showing remarkably similar effects for the voting variables. The racial attitude variables differ use different questions than HW such that they are not directly comparable in magnitude (despite using the same scale). For these variables, however, the results are identical in terms of sign. All results are significant at the $p < .001$ level.

Table 6: Nationscape Sample

	pres	house	tryhard	generations	marry	date
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	1.314***	1.223***	0.429	1.402***	−0.576	0.528**
	(0.103)	(0.047)	(0.399)	(0.212)	(0.492)	(0.197)
	$p = 0.000$	$p = 0.000$	$p = 0.283$	$p = 0.000$	$p = 0.242$	$p = 0.001$
racial_flux	−0.001***	−0.001***	0.007***	0.002**	0.013***	0.008***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.002)	(0.001)
	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.002$	$p = 0.000$	$p = 0.000$
R^2	0.627	0.746	0.210	0.250	0.117	0.119
Adj. R^2	0.627	0.746	0.210	0.250	0.117	0.119
Num. obs.	63635	208321	275183	274909	274625	274376
RMSE	0.305	0.251	1.176	1.217	1.247	1.073
N Clusters	13732	16916	17530	17525	17525	17525

Notes: This table shows the results of re-estimating HW's main results using data from Nationscape. All models are OLS regressions. Included control variables are identical to HW. The results in models 1 and 2 of this table should be compared to models 1 and 2 in Table 1 in HW. Models 3-6 cannot be directly compared because of different question wording. Standard errors clustered by zip code in parentheses. $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

6 Conclusion

Based on all approaches that we examined - including reproducibility, reconstruction of variables, multiverse analyses, and reestimation using a different dataset - HW's findings appear to be robust. Further replications, including conceptual replications, might consider examining whether these findings hold up across time or across different geographic and cultural contexts in order to scrutinize the generalizability of the phenomenon.

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