American Political Science Review (2024) 1–8
doi:10.1017/S0003055424001266

Letter

The Vietnam Draft Lottery and Whites' Racial Attitudes: Evidence from the General Social Survey

DONALD P. GREEN *Columbia University, United States*
OLIVER HYMAN-METZGER *Columbia University, United States*

The Vietnam Draft Lotteries, which randomly assigned men to military service, enable researchers to assess the long-term effects of interracial contact on racial attitudes. Using a new draft status indicator for respondents to the General Social Surveys 1978–2021, we show that white men who were selected for the draft subsequently expressed less negative attitudes toward Black people and toward policies designed to help them. These effects are apparent only for cohorts that were actually drafted into service, suggesting that interracial contact during military service led to attitude change. These findings have important implications for theories of political socialization and prejudice reduction.

INTRODUCTION

By randomly assigning draft risk to millions of American men, the Vietnam Draft Lottery (VDL) has enabled researchers to assess the causative role of military service on an array of economic, social, and political outcomes.[1] Building on the work of Erikson and Stoker (2011), we take up the question of whether and to what extent lottery-induced military service during this era shaped political attitudes. Erikson and Stoker revisited the Youth-Parent Socialization Panel Study, focusing on 260 high school students who were initially interviewed in 1965 and reinterviewed in 1973, 1982, and 1997. Men who were assigned a high draft risk expressed more liberal views and candidate preferences in 1973, although this effect subsided when these respondents were reinterviewed in 1982 and 1997.[2] These findings suggest two important insights about attitude change among young adults: change can be precipitated by salient political experiences, and this change may subside over time.

Ideally, one would build upon this small but intriguing study by revisiting other surveys of that era, but few surveys gathered information about respondents' birth dates, and those that did often had few respondents who were subject to the VDL.[3] One important exception is the General Social Survey (GSS), which has since 1978 routinely gathered birth dates from a representative sample of American adults (Davern et al. 2024). Between 1978 and 2021, the GSS interviewed 3,819 men who were subject to the VDL during the 3 years in which it drafted men for military service, of whom 1,409 were subject to the VDL in the calendar year of their 19th birthday. Those born from 1950 to 1952 are of special importance to researchers because, as explained in Section SI 2.1 of the Supplementary Material, these men were the ones most likely to serve in the military as a result of the VDL. In addition, the GSS interviewed 468 men who were subject to the 1972 Draft Lottery, which assigned priority numbers, none of which were ultimately called for service.

Perhaps the biggest advantage of using the GSS to assess the VDL's effect is the range of social attitudes that the survey measures. Notably absent from other investigations of the VDL's effect are the potential consequences of lottery-induced military service for racial attitudes. Early theories of intergroup contact's prejudice-reducing effect drew inspiration from whites' exposure to non-whites in military units (Stouffer et al. 1949, 595) and the merchant marine (Allport 1954, 275). Surveys conducted during the period of desegregation show that whites in integrated military units held more positive views about Black people and expressed less opposition to integration. Surveys of draft-era soldiers

Corresponding author: Donald P. Green, J.W. Burgess Professor, Department of Political Science, Columbia University, United States, dpg2110@columbia.edu.

Oliver Hyman-Metzger, Alumnus, Department of Political Science, Columbia University, United States, oh2189@columbia.edu.

Received: October 26, 2023; revised: May 01, 2024; accepted: October 11, 2024.

[1] Many of the leading studies, such as Angrist (1990), have used administrative data to assess the effects of military service on income and health.

[2] Erikson and Stoker (2011, 233) write, "In general, effects appear to fade. This is quite clear for political ideology and the composite issue index. The effects of lottery number on candidate evaluations and the vote, which were so prominent in 1972, also dissipate by 1980." Consistent with the finding that the effects of the VDL diminished over time, a survey conducted between 2014 and 2016 of 912 men with high or low draft lottery numbers found no appreciable effects on partisanship, foreign policy attitudes, or political trust (Green, Davenport, and Hanson 2019).

[3] See Section SI 1 of the Supplementary Material for an overview of these lottery-based studies.

since desegregation, however, have suggested little effect. Using the same panel survey of young adults as Erikson and Stoker (2011), Jennings and Markus (1977, 141) conclude that "ratings applied by majority group members to minority members were not altered by service-related experiences." Lawrence and Kane (1995, 253), using the GSS, conclude that "military service, no matter whether before or after 1975, has little effect on white veterans' attitudes toward blacks." However, neither Jennings and Markus (1977) nor Lawrence and Kane (1995) leverage the VDL to identify this causal effect.

Focusing on white male respondents to the GSS,[4] this research note examines the effects of draft lottery status on three sets of outcomes. The first is the extent to which respondents express negative attitudes toward Black people or an aversion to interracial contact. The second includes attitudes about race-related policies, such as whether interracial marriage should be illegal. Because of the growing connection between racial attitudes and party identification after the passage of the 1965 Voting Rights Act (Carmines and Stimson 1989), we also examine whether the VDL had any lasting repercussions for party identification, ideological self-categorization, or vote preferences. The cohorts of men subject to the VDL during years when it elevated the probability of military service appear to shift their race-related beliefs and attitudes but with little concomitant shift in their party attachments, vote choices, or liberal-conservative self-placements. Conversely, we see no corresponding shift in race-related views among cohorts whose VDL status did not affect their probability of serving in the military.

These findings have important theoretical implications for three extensive research literatures. For the literature on prejudice reduction (Paluck, Green, and Green 2019), our findings support the hypothesis that sustained interracial contact in a military context reduces outgroup hostility. For debates about "issue evolution" and the realignment of party attachments based on racial attitudes (Abramowitz 1994; Carmines and Stimson 1981), our findings suggest that the change in racial attitudes precipitated by the VDL did not bring about enduring shifts in partisan orientations or candidate preferences. For the literature on political socialization, especially the "lifelong openness hypothesis" (Tyler and Schuller 1991), our findings suggest that formative events experienced in young adulthood can change core attitudes concerning race.

The remainder of this essay is structured as follows. We begin by describing the outcome measures, causal estimands, and regression models. Next, we present results showing the VDL's effects on whites' racial attitudes and support for race-related policies, as well as the VDL's lack of effect on partisanship, liberal-conservative self-identification, and vote choice. In keeping with the hypothesis that the VDL's effects on racial attitudes occurred due to interracial contact experienced during military service, we find that draft lottery numbers in 1972, a year in which no men were drafted into the military, had no apparent effect on race-related outcomes. The same pattern holds for cohorts born prior to 1950, whose VDL status had negligible effects on their probability of military service. That said, these results must be interpreted with caution because our pre-analysis plan also included several non-race-related outcomes. After acknowledging the fact that the statistical significance of these results does not survive a correction for multiple comparisons, we conclude by discussing the theoretical implications of the apparent patterns of race-related attitude change.

DATA, OUTCOME MEASURES, AND STATISTICAL MODEL

Augmenting the GSS Cumulative File

The birth dates of GSS respondents are not released publicly. In order to ascertain GSS respondents' VDL status, which depends on their birth dates, we provided NORC with draft lottery outcomes that allowed their data scientists to assign all respondents born in a relevant year a 1 if their birth date was drafted and a 0 otherwise. The public release of the draft lottery status variable was perturbed by NORC to safeguard respondent anonymity. We received permission from NORC and our university's institutional review board to analyze a restricted version of the dataset that has not been perturbed.

Subjects

The white men in our sample fall into three categories, based on their year of birth. The 1950–52 cohorts (N = 1,204) became eligible for military service as the VDL commenced, and therefore they were especially likely to serve if and only if drafted. Overall, VDL status increased their probability of service by 17.1 percentage points (SE = 3.7 percentage points). Those born from 1944 to 1949 (N = 2,112) were subject to the VDL, but the lottery had very little effect on their probability of serving in the military (2.4 percentage points, SE = 3.1 percentage points) because many of these men had already enlisted or obtained deferments. Finally, those born in 1953 (N = 399) were assigned lottery numbers, but no one was actually drafted for service. As a result, having a low lottery number is a weak predictor of their military service (3.2 percentage points, SE = 6.8 percentage points). The 1950–52 cohorts therefore shed light on the effects of VDL status and the military experiences it caused, whereas the 1944–49 and 1953 cohorts provide instructive clues about whether VDL status had effects even when it did not raise the probability of military service. As explained in Section SI 6 of the Supplementary Material, our pre-analysis plan did not distinguish between the first two groups but should have.

[4] Dataverse Supplement 1 (DVS1) reports results for non-whites, but the total number of VDL-eligible non-white male respondents is 572, 205 of whom were born from 1950 to 1952 (see Green and Hyman-Metzger 2024).

TABLE 1. VDL Effects on Racial Attitudes

	Measures of racial attitudes							
	Neighbors	**Don't push**	**School**	**Dinner**	**Marry**	**Why racial ineq?**	**Intelligence and work ethic**	**Closeness**
	liveblks	*racpush*	*Three-item index*	*racdin*	*Two-item index*	*Four-item index*	*Four-item index*	*Two-item index*
	1	2	3	4	5	6	7	8
VDL status (Equation 1)	−0.0753 (0.0968)	0.2796** (0.1188)	0.0336 (0.0997)	0.3391* (0.1580)	0.1646 (0.1231)	0.0244 (0.0817)	0.1956* (0.0909)	0.0998 (0.1078)
VDL status (Equation 2)	−0.0696 (0.3113)	0.4815* (0.2259)	0.4053* (0.2014)	0.6159 (0.3804)	0.5209 (0.6987)	0.1143 (0.1819)	0.1932 (0.2875)	0.1923 (0.5182)
VDL status · year	−0.0002 (0.0102)	−0.0152 (0.0144)	−0.0410* (0.0193)	−0.0666 (0.0832)	−0.0121 (0.0234)	−0.0040 (0.0072)	0.0001 (0.0095)	−0.0033 (0.0181)
No. of obs.	422	281	377	128	252	612	424	327

Notes: *p*-values are computed using one-sided hypothesis tests (h: $+\beta_1$, $+\beta_1^*$, $-\beta_2^*$). $^*p < 0.05$; $^{**}p < 0.01$. Estimates are obtained using weighted least squares. Standard errors are in parentheses. Fixed effects for survey year are not shown. All outcome measures are standardized by dividing by the standard deviation of the weighted control group. Variable labels in italics refer to the naming convention in the GSS codebook. Pooled coefficients and results of joint significance tests are reported in Tables SI 9.1 and 9.2 in the Supplementary Material. High outcome values = positive attitudes toward Black people. *GSS question wording: liveblks*: On a five-point scale (1=strongly favor, 5=strongly object), would you favor living in a neighborhood where half of your neighbors were African-Americans? (reverse coded). Survey years: 1990, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2021. *racpush:* Do you agree that African-Americans shouldn't push themselves where they're not wanted? Survey years: 1980, 1982, 1984, 1985, 1994, 1996, 1998, 2000, 2002. Children in interracial schools: three-item index: (i) *racfew*: Would you yourself have any objection to sending your children to a school where a few of the children are Black? (ii) *rachaf*: If respondent answered "no" or "don't know" to (i): Where half of the children are Black? (iii) *racmost*: If respondent answered "no" or "don't know" to (ii): Where more than half of the children are Black? Survey years (racfew, rachaf, and racmost): 1978, 1982, 1983, 1985, 1986, 1998, 1989, 1990, 1991, 1993, 1994, 1996. *racdin:* How strongly would you object if a member of your family wanted to bring a Black friend home to dinner? Would you object strongly, mildly, or not at all? Survey years: 1980, 1982, 1984, 1985. Preferred race of in-laws: two-item index: (i) *marblk:* Would you favor or oppose having a close relative or family member marry a Black person? (reverse coded). Survey years: 1990, 1996, 1998, 2000, 2002, 2004, 2006, 2008. 2010, 2012, 2014, 2016, 2018, 2021. (ii) *marwht:* Would you favor or oppose having a close relative or family member marry a white person? Survey years: 2000, 2002, 2004, 2006, 2008. 2010, 2012, 2014, 2016. Why racial inequality?: four-item index: (i) *racdif1*: On the average, African-Americans have worse jobs, income, and housing than white people. Do you think these differences are mainly due to discrimination? (reverse coded). (ii) *racdif2*: Do you think these differences are because most African-Americans have less in-born ability to learn? (iii) *racdif3*: Do you think these differences are because most African-Americans don't have the chance for education that it takes to rise out of poverty? (reverse coded). (iv) *racdif4*: Do you think these differences are because most African-Americans just don't have the motivation or willpower to pull themselves up out of poverty? Survey years (racdif1, racdif2, racdif3, and racdif4): 1985–2021, except for 1987. African-American intelligence and work ethic: four-item index: (i) *intlblks*: In general, where would you rate the intelligence of African-Americans on a seven-point scale (1=unintelligent, 7=intelligent)? (ii) *intlwhts*: On the same scale, where would you rate the intelligence of whites, in general? (reverse coded). Survey years (intlblks and intlwhts): 1990, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2021. (iii) *workblks*: In general, where would you rate the work ethic of African-Americans on a seven-point scale (1=hard-working, 7=lazy)? (reverse coded). (iv) *workwhts*: On the same scale, where would you rate the work ethic of whites, in general? Survey years (workblks and workwhts): 1990, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2021. Closeness to African-Americans: two-item index: (i) *closeblk*: In general, how close do you feel to African-Americans on a nine-point scale (1=not at all close, 9=very close)? (ii) *closewht*: On the same scale, how close do you feel to whites, in general? (reverse coded). Survey years (closeblk and closewht): 1996, 1998, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016.

Outcome Measures

We focus our attention on the pool of GSS questions that were asked of at least 50 VDL-eligible white men. Table 1 describes eight measures of racial attitudes: preferences concerning the racial composition of the neighborhood, preferences concerning the racial composition of the school one's children attend, willingness to have a Black dinner guest, willingness to have a close relative marry a Black person, explanations for racial inequality, rejection of racial stereotypes, and feelings of closeness to Blacks as a group. Table 2 describes eight measures of race-related political attitudes: support for open housing, affirmative action, spending to assist Blacks, and programs that assist Blacks; willingness to vote for a Black presidential candidate or to open a social club up to Black members; rejection of the view that whites have the right to maintain segregated neighborhoods; and opposition to laws forbidding interracial marriage. Table 3 describes four measures of general political orientations: liberal-conservative self-identification, party identification, self-reported vote preference, and thermometer ratings of

TABLE 2. VDL Effects on Race-Related Policy Views

	Measures of race-related policy views							
	Club	**Marriage**	**Open-housing**	**Candidate**	**Govt spending**	**Govt support**	**Affirmative action**	**Segregation**
	racchng	*racmar*	*racopen*	*racpres*	*natrace*	*helpblk*	*affrmact*	*racseg*
	1	2	3	4	5	6	7	8
VDL status (Equation 1)	0.0619 (0.1408)	0.0666 (0.0934)	0.0337 (0.0789)	0.0518 (0.0923)	0.0632 (0.0827)	0.1171 (0.0779)	0.0090 (0.0965)	0.1556 (0.1061)
VDL status (Equation 2)	0.6125 (0.5524)	0.1139 (0.2009)	0.1231 (0.1376)	0.1959 (0.1573)	0.0258 (0.1403)	0.3171* (0.1628)	1.0816** (0.3256)	0.4056* (0.2411)
VDL status · year	–0.0506 (0.0491)	–0.0038 (0.0142)	–0.0052 (0.0065)	–0.0123 (0.0108)	0.0021 (0.0065)	–0.0092 (0.0066)	–0.0370** (0.0107)	–0.0264 (0.0228)
No. of obs.	202	465	643	425	622	711	407	350

Notes: *p*-values are computed using one-sided hypothesis tests (h: $+\beta_1$, $+\beta_1^*$, $-\beta_2^*$). $^*p < 0.05$; $^{**}p < 0.01$. Estimates are obtained using weighted least squares. Standard errors are in parentheses. Fixed effects for survey year are not shown. All outcome measures are standardized by dividing by the standard deviation of the weighted control group. Variable labels in italics refer to the naming convention in the GSS codebook. Pooled coefficients and results of joint significance tests are reported in Tables SI 9.1 and 9.2 in the Supplementary Material. High outcome values = support for policies that increase interracial contact and reduce racial inequalities. *GSS question wording: racchng:* If you and your friends belonged to a social club that would not let Blacks join, would you try to change the rules so that Blacks could join? (reverse coded). Survey years: 1985, 1986, 1988, 1989, 1990, 1991, 1993, 1994. *racmar:* Do you think there should be laws against marriages between African-Americans and whites? Survey years: 1980, 1982, 1984, 1985, 1987, 1988, 1989, 1990, 1991, 1993, 1994, 1996, 1998, 2000, 2002. *racopen:* Suppose there is a community-wide vote on the general housing issue. There are two possible laws to vote on: (1) Owner decides who to sell to. (2) Owner cannot refuse to sell to someone based on their race or color. Which law would you vote for? Survey years: 1978, 1980, 1983, 1984, 1986, 1987, 1988, 1989, 1990, 1991, 1993, 1994, 1996, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018. *racpres:* If your party nominated an African-American for president, would you vote for him if he were qualified for the job? (reverse coded). Survey years: 1978, 1982, 1983, 1985, 1986, 1988, 1989, 1990, 1991, 1993, 1994, 1996, 2008, 2010. *natrace:* Are we spending too much, too little, or about the right amount on improving the conditions of Blacks? (reverse coded). Survey years: 1978–2021. *helpblk:* Some people think that African-Americans have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to African-Americans. What about your opinion? (reverse coded). Survey years: 1983–2021, except for 1985. *affrmact:* Some people say that because of past discrimination, Blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of Blacks is wrong because it discriminates against whites. What about your opinion? (reverse coded). Survey years: 1994–2021. *racseg:* Do you agree that white people have a right to keep African-Americans out of their neighborhoods if they want to, and African-Americans should respect that right? Survey years: 1980, 1982, 1984, 1985, 1987, 1988, 1989, 1990, 1991, 1993, 1994, 1996.

liberals and conservatives. All outcome measures have been standardized by dividing by the standard deviation in the inverse probability weighted control group.

Statistical Model

When analyzing the effects of draft lottery status on outcomes, we focus on the average intent-to-treat effect (ITT), which is the average effect of having one's draft number called, regardless of actual military service. We apply two regression models to each of the survey outcome measures. The first estimates the average ITT across all survey years using survey-year fixed effects:

$$\mathrm{Y}_i = \beta_1 \mathrm{T}_i + \gamma_1 1978_i + \gamma_2 1979_i + \cdots + \gamma_{27} 2021_i + u_i. \quad (1)$$

Here, Y_i denotes a standardized survey outcome, T_i is an indicator variable scored 1 if the respondent's lottery number was called up for service, and β_1 is the average intent-to-treat effect. The γ_j represent fixed effects for each GSS survey, which capture over-time trends due to changes in public opinion or survey administration. The use of weighted least squares with inverse probability weights reflects the fact that a respondent's risk of being drafted varies from one birth year to the next. Similar results are obtained if we instead include fixed effects for respondent birth year, as shown in DVS2.[5] In essence, the first regression model assesses whether those assigned different draft risk express different race-related views in GSS surveys that were conducted from 1978 on.[6]

[5] When pooling multiple outcomes into a single regression analysis, we also include fixed effects for each item or index.

[6] Everyone born on a given date is assigned as a cluster to treatment or control. Lacking access to respondents' birth dates, we cannot calculate clustered standard errors. However, conventional standard errors are approximately correct because the intra-cluster correlation (ICC) is very low. Replication data from Green, Davenport, and

TABLE 3. VDL Effects on Liberalism/Conservatism, Party Identification, and Vote Choice

	Measures of political orientations			
	Liberal-conservative self-description	**Party ID**	**Presidential vote choice**	**Con–lib thermometer**
	polviews	*partyid*	*Multi-item index*	*Two-item index*
	1	2	3	4
VDL status (Equation 1)	–0.0114 (0.0606)	–0.0679 (0.0609)	0.0331 (0.0619)	0.1229 (0.1867)
VDL status (Equation 2)	–0.1001 (0.1143)	–0.1159 (0.1158)	–0.0050 (0.1183)	–0.8529 (1.5861)
VDL status · year	0.0043 (0.0048)	0.0024 (0.0048)	0.0018 (0.0049)	0.1016 (0.1640)
No. of obs.	1,136	1,170	1,038	96

Notes: p-values are computed using one-sided hypothesis tests (h: $-\beta_1$, $-\beta_1^*$, $+\beta_2^*$). $^*p < 0.05$; $^{**}p < 0.01$. Estimates are obtained using weighted least squares. Standard errors are in parentheses. Fixed effects for survey year are not shown. All outcome measures are standardized by dividing by the standard deviation of the weighted control group. Variable labels in italics refer to the naming convention in the GSS codebook. Pooled coefficients and results of joint significance tests are reported in Tables SI 9.1 and 9.2 in the Supplementary Material. High outcome values = conservative/Republican orientations. *GSS question wording: polviews:* We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal (point 1) to extremely conservative (point 7). Where would you place yourself on this scale? Survey years: 1978–2021. *partyid:* Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what? Identify your partisan affiliation on a seven-point scale from strong Democrat (0) to strong Republican (6). (excl. other). Survey years: 1978–2021. Presidential vote choice: two-item index: (i) preschoice: For respondents who voted in the most recent Presidential election: Did you vote for the Democratic (1) or Republican (2) nominee? (excl. other). (ii) preschoice2: For respondents who did not vote: If you had voted, would you have voted for the Democratic (1) or Republican (2) nominee? (excl. other). Survey years (preschoice and preschoice2): 1978–2021. Conservative minus liberal thermometer index: two-item index: (i) *contemp*: How would you rate conservatives using the [100 degree] feeling thermometer? (ii) *libtemp*: How would you rate liberals using the [100 degree] feeling thermometer? (reverse coded). Survey years (libtemp and contemp): 1986, 1988, 1989.

The second model allows for the possibility that the effects of the VDL diminish over time. Equation 2 includes an interaction term with $SurveyYear_i$, which is an integer that reflects the number of years between 1978 and when the survey was conducted:

$$\mathrm{Y}_i = \beta_1^* \, \mathrm{T}_i + \beta_2^* (\mathrm{T}_i \cdot SurveyYear_i) + \gamma_1^* \, 1978_i + \gamma_2^* \, 1979_i + \cdots + \gamma_{27}^* \, 2021_i + u_{i.}^* \quad (2)$$

When $SurveyYear_i = 0$, the product term drops out, and the estimate of β_1^* represents the ITT in 1978. The rate at which the ITT changes with time is determined by β_2^*. For example, for those interviewed in 2018, $SurveyYear_i = 40$, and the estimated ITT in that year equals $\widehat{\beta_1^*} + 40\widehat{\beta_2^*}$. Notice that this specification assumes that the passage of time erodes the average ITT effect by a constant amount each year.[7] This is a strong modeling assumption, especially given the fact that the outcome measures are not distributed uniformly over time. In order to help readers evaluate the credibility of the estimates for each survey outcome, the tables list the years in which each survey measure appears in the GSS.

Hypothesis Tests

In keeping with our pre-analysis plan, which states that "We expect military service to induce racial tolerance and support for policies that benefit Blacks among white respondents," we report one-tailed hypothesis tests. This plan also specifies that we will assess the "treatment-by-time interaction (with a one-sided test)" given our expectation that effects will diminish over time.

RESULTS

Tables 1–3 present regression results for measures of racial attitudes, race-related policy and candidate preferences, and general political orientations, respectively. The tables report the average effect of VDL status ($\widehat{\beta_1}$) based on Equation 1 and the conditional effect ($\widehat{\beta_1^*}$) and interaction effect ($\widehat{\beta_2^*}$) based on Equation 2.

Table 1 reports how exposure to the Draft Lottery affects responses to an array of race-related attitude measures. We find positive ITT effects ($\widehat{\beta_1}$) on seven of

Hanson (2019) show that the ICC when using VDL to predict party registration, for example, is less than 0.0002.

[7] See Section SI 10.2 of the Supplementary Material for exploratory analysis that relaxes this assumption.

the eight outcome measures. For example, the GSS asks respondents to rate Blacks and whites on scales that range from "unintelligent" and "lazy" to "intelligent" and "hardworking"; subtracting the two ratings suggests the relative ratings of Blacks and whites. Pooling over all survey years, the ITT is estimated to be 0.1956 standard deviations (SE = 0.0909). In other words, assignment to a drafted lottery number increased respondents' relative perceptions of Black people by approximately one-fifth of a standard deviation. Another survey measure that seems to indicate a positive effect asks, "How strongly would you object if a member of your family wanted to bring a Black friend home to dinner?" Here, VDL status appears to elevate willingness by 0.3391 standard deviations (SE = 0.1580). The pooled ITT for this set of outcome measures is 0.0903, or about one-eleventh of a standard deviation.

If VDL-induced attitude change diminishes over time, the average treatment effect across GSS surveys from 1978 to 2021 represents a high bar, as more than half of the respondents in our sample were interviewed after 1996, approximately 25 years after the Vietnam Draft Lotteries. The regression results based on Equation 2 indicate the rate at which effects decay. The lower panel of Table 1 reports the treatment-by-time interaction ($\widehat{\beta_2^*}$) as well as the implied average treatment effect conditional on being interviewed in 1978 ($\widehat{\beta_1^*}$). Focusing on the seven outcomes for which we observe a positive conditional effect, we see that six of the interactions are estimated to be negative, implying diminishing effects over time. For three of the outcome measures, the average treatment effects conditional on being surveyed in 1978 are found to be more than twice as large as the estimated treatment effect across all GSS survey years (i.e., $\widehat{\beta_1^*} > 2\widehat{\beta_1}$). Pooling all of the survey outcomes together suggests an average $\widehat{\beta_1^*}$ of 0.1923 standard deviations.

Table 2 reports that policy-related racial attitudes moved in a similar direction. The average treatment effect pooling across all survey years (β_1) is estimated to be positive for all eight outcome measures. The pooled estimate of $\widehat{\beta_1}$ is found to be 0.0742, or about one-fourteenth of a standard deviation. The apparent effects of the VDL again grow as we turn our attention to (β_1^*), the modeled effect for those interviewed in 1978. Seven of the eight policy-related outcomes show negative interaction coefficients, and for six of the outcomes $\widehat{\beta_1^*}$ is more than twice the size of $\widehat{\beta_1}$. For example, VDL status appears to promote support for government help for Black people to remedy past discrimination, with a modeled effect in 1978 of one-third of a standard deviation ($\widehat{\beta_1^*} = 0.3171$, SE = 0.1628). When these eight outcomes are pooled, the modeled treatment effect in 1978 is estimated to be 0.1832.

Overall, the results suggest that whites experienced VDL-induced attitude change on issues concerning race. In keeping with our pre-analysis plan, we also examined the VDL's effects on whether respondents have Black neighbors, attend a church that has Black members, have Black friends, or have Black coworkers. Due to space constraints, these results are presented in Table SI 7.1 in the Supplementary Material. For this group of outcomes, the estimated average effects ($\widehat{\beta_1}$) are mixed, but the modeled effects in 1978 ($\widehat{\beta_1^*}$) are all positive, and all of the time-by-treatment interactions ($\widehat{\beta_2^*}$) are negative. It appears that the VDL did promote cross-race contact among whites, at least early on.

Pooling the 20 race-related outcomes, we find an average ITT effect across all survey years of 0.0714. Randomization inference shows the one-tailed p-value of this estimate to be 0.0137. Invoking additional modeling assumptions to assess the rate at which the ITT diminished over time, we obtain a pooled estimate of $\widehat{\beta_2^*} = -0.00551$. This rate of annual decline coincides with a modeled ITT in 1978 of 0.1778 standard deviations. Using randomization inference to assess the joint significance of $\widehat{\beta_1^*}$ and $\widehat{\beta_2^*}$ yields a p-value of 0.0144 (two-tailed).[8] In sum, it appears that the VDL produced detectable effects on race-related GSS outcomes and that the ITT was especially strong in the late 1970s, then gradually subsided.

Do we see a concomitant shift in broader political outlook, as reflected in party affiliation, vote preferences, liberal-conservative self-identification, or thermometer ratings? The answer appears to be no. Table 3 suggests that the pooled ITT ($\widehat{\beta_1}$) is –0.0137 (see Table SI 9.1 in the Supplementary Material), which is substantively small and statistically indistinguishable from zero (one-tailed $p = 0.486$), despite the large Ns available for analysis. Nor do we see evidence suggesting the joint significance of $\widehat{\beta_1^*}$ and $\widehat{\beta_2^*}$ (two-tailed $p = 0.797$). A generous reading of the $\widehat{\beta_1^*}$ estimates suggests that the VDL-induced liberalization of racial attitudes that manifested in early GSS surveys may have moved political attachments and candidate choices to the left initially, but the statistical evidence is faint. See Section SI 7.3 of the Supplementary Material for evidence suggesting weak VDL effects on a range of other preregistered issues, but see Section SI 10.1 of the Supplementary Material on possible effects on other issues that were not part of our pre-analysis plan but were suggested by reviewers.

MULTIPLE COMPARISONS

Because the GSS measures so many outcomes, there is always the danger of false discovery due to a profusion of different tests. Placebo tests help address these concerns. The GSS provides parallel VDL information for women, based on their birth dates. Since women were not part of the lottery, their survey responses

[8] This is a conservative p-value insofar as the underlying F-test is two-sided. Table SI 9.2 in the Supplementary Material delves more deeply into randomization inference results for this model, including p-values that account for the expected directions of β_1^* and β_2^*.

provide a sense of whether significant race-related effects might occur by chance. Applying the same joint hypothesis test to the set of 20 race-related outcome measures yields a $\widehat{\beta_1}$ of 0.0417 (one-tailed $p = 0.0922$) (see Table SI 9.1 in the Supplementary Material and Tables DVS3 1.1 to 1.3). As expected, this estimated ITT is substantially lower than the corresponding estimate for men, and the p-value falls short of statistical significance, but the point estimate is a reminder that misleading results can pop up by chance in a study of this size. As expected, a joint test of $\widehat{\beta_1^*} = \widehat{\beta_2^*} = 0$ yields a nonsignificant two-tailed p-value of 0.258.

Although we focus here on racial attitudes, our preregistered outcomes included support for the draft, attitudes toward the military and national defense, attitudes toward social programs and economic inequality, trust in people and institutions, and political involvement. Taken together, our pre-analysis plan includes 26 outcome variables beyond race-related outcomes and partisan outcomes, for a total of 28 possible comparisons. A Bonferroni correction for the 28 outcomes we considered in our pre-analysis plan divides the 0.05 significance threshold by 28; that calculation yields a target p-value of 0.0018, which the pooled estimates for race-related outcomes fail to meet. Thus, the most cautious interpretation of our results is that they could have arisen by chance given the sheer number of outcomes we considered. The need for further confirmatory evidence underscores the importance of locating other surveys from the post-Vietnam Era that measured both birth date and race-related outcomes.

CAUSAL MECHANISM

Suppose the apparent race-related effects of the VDL were genuine. These ITT effects could be attributed to reactions to the lottery itself or to the military experiences of those who were induced to serve by the VDL. Analysis of the 1972 Draft Lottery suggests the latter. The 1972 VDL assigned priority numbers to each birth date, but no numbers were actually called for service. If lottery status alone were the causative agent behind racial attitude change, we should see effects among the cohort subject to this lottery. Pooling over the 19 race-related outcome measures for which we have at least 50 respondents, we obtain an estimate of β_1 that is weakly negative (–0.0125). The same reasoning applies to the 1944–49 cohorts, which were subject to the first VDL but had compliance rates close to zero. As shown in DVS4 Tables 2.1 and 2.2, the VDL on average had no liberalizing effect on the race-related views expressed by white men in these cohorts, and the pooled estimate of β_1 is again weakly negative (see Table SI 9.1 in the Supplementary Material). It appears that military service is a necessary ingredient for race-related treatment effects, presumably because service leads to interracial contact. This interpretation is supported by contemporary survey and qualitative evidence suggesting that white–Black relationships in Vietnam were relatively harmonious (see Section SI 2.2 of the Supplementary Material).

CONCLUSION

The vast literature on the consequences of interracial contact includes relatively few studies that leverage random assignment, examine cooperative contact that is sustained over a long period of time, and assess outcomes years after the randomized intervention (Paluck, Green, and Green 2019). The present study contributes to that literature by adducing fresh evidence about the effects of the VDL on white men.

The GSS results show an intriguing pattern: in the years where draft status strongly affected actual military service, white men whose birth dates were randomly selected for the draft were less likely to express negative attitudes about Black people or policies that assist them. To appreciate the magnitude of these apparent effects, bear in mind that only one-in-six VDL-eligible men born from 1950 to 1952 were compliers, to use the terminology of Angrist, Imbens, and Rubin (1996), that is, men who served in the military if and only if drafted. If we assume that never-takers' (those who would not serve regardless of draft status) and always-takers' (those who would enlist regardless of draft status) race-related outcomes were unaffected by the lottery itself, the effects among compliers must be approximately six times larger than the ITT estimates ($\widehat{\beta_1}$) reported in Tables 1 and 2. Pooling over all 20 race-related outcomes over all survey years, the complier average causal effect is estimated to be (0.0714)(6) = 0.428 standard deviations.

At the same time, we find no detectable shifts in broad political orientations or voting preferences. As shown in Section SI 7.3.2 of the Supplementary Material, we also see little evidence that VDL-induced changes in racial attitudes expressed themselves through support for social welfare programs or efforts to remedy economic inequality. These findings speak to longstanding theoretical debates about the extent to which the public's issue stances affect their vote choices (Lenz 2013) and the degree to which "dynamic constraint" leads the public to adjust its stance on one issue in response to changed opinions on related topics (Coppock and Green 2022).

Over the four decades of GSS surveys, the VDL-induced effects on race-related outcomes seem to have subsided, at least in part. Although racial attitudes are ordinarily characterized as deeply rooted, the GSS data suggest that the VDL may have induced two waves of change, a pro-Black shift in the wake of military service followed by a gradual decline relative to the control group. This pattern is consistent with a "lifelong openness" model of political socialization whereby attitudes evolve as new experiences gradually supersede old ones, even among adults (Tyler and Schuller 1991).

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10.1017/S0003055424001266.

DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the American Political Science Review Dataverse: https://doi.org/10.7910/DVN/SU3R6Y. The restricted dataset used in this article was obtained by permission from NORC. The unrestricted data (with some draft lottery status indicators changed to protect anonymity) are publicly available at gss.norc.org.

ACKNOWLEDGMENTS

The authors are grateful to Beatrice Bonini, Tiffany Davenport, Bob Erikson, John Huber, Michael Peress, Nat Rubin, Gaurav Sood, and John Ternovski for comments and suggestions. The authors thank Pia Deshpande, who helped prepare replication materials. The pre-analysis plan for this study was posted on January 31, 2023, before the release of the lottery-enhanced version of the GSS.

FUNDING STATEMENT

Funding was provided by the Graduate School of Arts and Sciences at Columbia University.

CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

ETHICAL STANDARDS

The human subjects research in this article was reviewed and approved by the Institutional Review Board at Columbia University, protocol AAAU-5511. This article adheres to the principles concerning research with human participants laid out in APSA's Principles and Guidance on Human Subject Research (2020).

REFERENCES

Abramowitz, Alan I. 1994. "Issue Evolution Reconsidered: Racial Attitudes and Partisanship in the U.S. Electorate." *American Journal of Political Science* 38 (1): 1–24.
Allport, Gordon W. 1954. *The Nature of Prejudice*. Cambridge, MA: Addison-Wesley.
Angrist, Joshua D. 1990. "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records." *The American Economic Review* 80 (3): 313–36.
Angrist, Joshua D., Guido W. Imbens, and Donald B. Rubin. 1996. "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association* 91 (434): 444–55.
Carmines, Edward G., and James A. Stimson. 1981. "Issue Evolution, Population Replacement, and Normal Partisan Change." *American Political Science Review* 75 (1): 107–18.
Carmines, Edward G., and James A. Stimson. 1989. *Issue Evolution: Race and the Transformation of American Politics*. Princeton, NJ: Princeton University Press.
Coppock, Alexander, and Donald P. Green. 2022. "Do Belief Systems Exhibit Dynamic Constraint?" *The Journal of Politics* 84 (2): 725–38.
Davern, Michael, Rene Bautista, Jeremy Freese, Pamela Herd, and Stephen L. Morgan. 2024. "General Social Survey 1972–2022. [Machine-Readable Data File]." National Opinion Research Center.
Erikson, Robert S., and Laura Stoker. 2011. "Caught in the Draft: The Effects of Vietnam Draft Lottery Status on Political Attitudes." *American Political Science Review* 105 (2): 221–37.
Green, Donald P., Tiffany C. Davenport, and Kolby Hanson. 2019. "Are There Long-Term Effects of the Vietnam Draft on Political Attitudes or Behavior? Apparently Not." *Journal of Experimental Political Science* 6 (2): 71–80.
Green, Donald P., and Oliver Hyman-Metzger. 2024. "Replication Data for: The Vietnam Draft Lottery and Whites' Racial Attitudes: Evidence from the General Social Survey." Harvard Dataverse. Dataset. https://doi.org/10.7910/DVN/SU3R6Y.
Jennings, M. Kent, and Gregory B. Markus. 1977. "The Effect of Military Service on Political Attitudes: A Panel Study." *American Political Science Review* 71 (1): 131–47.
Lawrence, George H., and Thomas D. Kane. 1995. "Military Service and Racial Attitudes of White Veterans." *Armed Forces & Society* 22 (2): 235–55.
Lenz, Gabriel S. 2013. *Follow the Leader? How Voters Respond to Politicians' Policies and Performance*. Chicago, IL: University of Chicago Press.
Paluck, Elizabeth L., Seth A. Green, and Donald P. Green. 2019. "The Contact Hypothesis Re-evaluated." *Behavioural Public Policy* 3 (2): 129–58.
Stouffer, Samuel A., Edward A. Suchman, Leland C. Devinney, Shirley A. Star, and Robin M. Williams. 1949. *The American Soldier: Adjustment during Army Life*. Princeton, NJ: Princeton University Press.
Tyler, Tom R., and Regina A. Schuller. 1991. "Aging and Attitude Change." *Journal of Personality and Social Psychology* 61 (5): 689–97.