

Racial Discrimination and the Social Contract: Evidence from U.S. Army Enlistment during WWII*

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Abstract

This paper documents that the Pearl Harbor attack triggered a sharp increase in volunteer enlistment rates of American men, the magnitude of the increase was smaller for Black men than for white men and the Black-white gap was larger in counties with higher levels of racial discrimination. The results suggest that political exclusion and discrimination can undermine support for the government during critical times such as war.

Keywords: Political and Economic Exclusion, Social Contract, Nation Building

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“Should I sacrifice my life to live half American? Will things be better for the next generation in the peace to follow? Would it be demanding too much to demand full citizenship rights in exchange for the sacrificing of my life? Is the kind of America I know worth defending?”

– James G. Thompson, January 1942, *Pittsburgh Courier*.

1 Introduction

Most modern governments operate on the basis of a *social contract*, under which citizens support the state and, in exchange, the state provides public goods, such as protection to its citizens (Hobbes, 1651; Locke, 1690). In diverse societies, ruling elites have been known to undermine the social contract and exclude groups with different preferences from the political process. For example, in the United States, voting rights were initially only given to white male landowners. Black men were given the right to vote in 1870, but then effectively disenfranchised for another century (Keyssar, 2000). In most states, women were not given the right to vote until the 1920s. While excluding certain individuals may help the elite obtain their preferred policies in normal times, it can also erode support for the state from the excluded group. This can be costly during “critical times” like war, when the motivation of a nation’s citizens can determine its survival (Acemoglu and Robinson, 2000; Aidt and Franck, 2015; Jha and Wilkinson, 2012; Ticchi and Vindigni, 2008; Scheve and Stasavage, 2016).

This paper studies how the exclusion and discrimination of a group affects its support for the state during wartime. Earlier studies have not systematically examined this question and the answer is ambiguous *ex ante*. On the one hand, the discriminated and excluded population may withhold support. Individuals are more willing to exert effort to win the war if they believe that a defeat would reduce national public goods (Alesina et al., 2020). Since members of the excluded group benefit less from such public goods, their *extrinsic* value of winning the war, and thus their motivation to win the war, will be lower. Perhaps even more importantly, political exclusion and discrimination can reduce the *intrinsic* value of winning the war by weakening national identities (e.g., Bénabou and Tirole, 2011).¹ On the other hand, the discriminated and excluded population may provide more support for the government during wartime to signal their value to the state (e.g., Spence, 1973). This was, for example, a common view amongst Black men in the United States during WWI (Williams, 2010) and Colonial Indian men during WWII (Karnad, 2015). Ultimately, how discrimination and political exclusion affect support for the government during wartime is an empirical question.

This study provides rigorous and novel evidence from a historically important and theoretically relevant context: racial discrimination and volunteer Army enlistment in the U.S. immediately after the surprise attack on Pearl Harbor on December 7, 1941.

This context provides two important advantages for our study. First, the attack by Imperial Japan on U.S. soil transformed WWII from a distant war to one about the defense of the American nation. Victory was far from guaranteed. The experiences of WWII in Europe and Asia in the preceding years indicated the

¹For example, Bénabou and Tirole (2011) provides a theoretical framework for how individuals trade-off the intrinsic and extrinsic costs of identity. Also, see Jia and Persson (2020) for a theoretical and empirical application in the context of China.

historical scale of the challenges to come. The American government anticipated needing to fully mobilize its population and economic resources. In this context, a man's motivation to volunteer was likely positively associated with his support for the American government. Second, WWII took place during the Jim Crow era, when racial discrimination was pervasive. The Black population was *de facto* disenfranchised and the trade-offs we discussed earlier were intensely debated within the Black community, which felt considerable ambivalence about defending a state that failed to provide them with equal voting and civil rights.

Our main data are the universe of digitized WWII induction cards, which contain information about volunteer status, date, rank, county of origin and other characteristics. The 1940 Population Census contains information about the number of eligible men and numerous demographic and economic variables that we use as controls in the analysis. We use a large number of additional data sources that contain information about the level of discrimination, the presence of Black organizations, farms and many other variables. We measure discrimination with the variables that have emerged in the literature that vary at the county level and are available for all 48 continental states for this period. For parsimony, our main measure of discrimination is the first principal component of variables that reflects formal, informal, political, social and economic discrimination experienced by Black men and their communities. We perform several exercises to validate this measure and show that our findings are robust to alternative measures of discrimination. Our estimating sample is a weekly panel at the county and race level.

The granularity of the data and the suddenness of the Pearl Harbor attack allow us to formulate and test sharp empirical hypotheses. If American men supported the U.S. government when it was under threat, then volunteer enlistment rates for all races should increase after Pearl Harbor. If racial discrimination undermined support, then the increase in enlistment for Black men should be smaller in magnitude than the increase for white men, who did not face racial discrimination. The Black-white difference captures the effect of discrimination in the Army, which followed Jim Crow practices, as well as discrimination in society. To isolate the effect of discrimination in society, we can compare Black enlistment from counties with higher and lower levels of discrimination. This is because men from different counties are pooled together after they enlist such that the discrimination a man faces in the Army does not vary with his county of residence prior to enlisting.² If racial discrimination reduces support for the government at wartime, then the increase in enlistment after Pearl Harbor will be smaller in magnitude for Black men from counties with higher levels of discrimination than for those from counties with lower levels of discrimination. In contrast, the enlistment of white men should be similar in the two types of counties, since the racial discrimination we study targeted Black individuals.

Our paper proceeds in several steps. First, we examine volunteer enlistment patterns in the raw data. We examine a narrow window of eight weeks before and eight weeks after Pearl Harbor. This allows us to capture the full impact of discrimination because the government had not yet had time to respond to the war by implementing other changes. We document that volunteer rates increased immediately after Pearl Harbor for both races. However, the magnitude of the increase was smaller for Black men than white men. Moreover, when we separately examine counties with high and low levels of discrimination, we find that

²Army assignment may be correlated across larger regions (e.g., men from Alabama are more likely to be assigned to a Southern base than men from Maine). We will address this by controlling for county-week fixed effects in the analysis.

the increase in Black volunteer rates after Pearl Harbor was higher in counties with low discrimination than in counties with high discrimination. In contrast, volunteer enlistment rates of white men, who did not face racial discrimination, are similar across the two types of counties. The descriptive patterns are consistent with discrimination undermining the ability of the U.S. government to mobilize men at the onset of a major conflict – an important dimension of state capacity. The main caveat for interpreting these patterns as the causal effect of discrimination is that Black and white men, and counties with high and low levels of discrimination, can differ in ways that affect enlistment but are unrelated to discrimination.

The second exercise addresses omitted variables and estimates a plausibly causal effect of discrimination on volunteer enlistment. We estimate a heterogeneous treatment specification that compares enlistment between Black and white men, across counties with varying levels of discrimination, before and after Pearl Harbor. The baseline estimate includes county-week fixed effects, which control for differences across counties over time (e.g., distance to the nearest recruitment office), and race-week fixed effects, which control for differences across races over time (e.g., health differences between Black and white men). The baseline also includes county-race fixed effects, which control for time invariant county-race-specific differences. Causal interpretation of the triple interaction coefficient assumes that there are no other county-race-post-Pearl Harbor specific differences that are correlated with discrimination *and* influence enlistment decisions. We conduct numerous exercises to show that the results are robust to controlling for potential violations of this assumption, such as county-race-post-Pearl Harbor specific differences in economic opportunities, demographic composition, and farm ownership. We allow the influence of all of the controls used in the study to be fully flexible over time to account for the possibility that their relationship with discrimination and enlistment changes after Pearl Harbor.

We find that discrimination reduces Black volunteer enlistment. According to our estimates, the rise in Black volunteer enlistment during the eight weeks after Pearl Harbor was 66% higher in a county at the 25th percentile of the discrimination measure relative to a county at the 75th percentile.

The results provide strong evidence that discrimination and exclusion reduce state capacity during wartime, which is consistent with the presence of a social contract. A likely channel for these effects is that discrimination discourages Black men from volunteering. We also consider other explanations and find that they are unlikely to drive our main results.

Historical accounts note that the Army sometimes turned away Black men during the early parts of WWII. This was due partly to the limited capacity to house and train Black men who were segregated from white men, and partly to discriminatory local Army Boards being unwilling to accept Black men (Flynn, 1984). These “demand-side” constraints would confound our preferred interpretation if capacity constraints or Army Board attitudes were correlated with discrimination. We address this in several ways. First, we control for the number of Black officers and the distance to the nearest military base in each county, which proxy for the capacity of the Army to absorb Black soldiers. Second, we examine draft enlistment rates, because Black conscripts faced similar capacity constraints and discrimination as volunteers. If anything, local Army Boards had more control over drafted men than volunteers. We find a null effect on Black draft rates. The main result of discrimination on Black volunteer rates is robust to controlling for Black draft

rates.³ This supports the interpretation that discrimination discouraged Black men from volunteering. We acknowledge that we cannot rule out alternative forces that differ for Black and white men, the level of discrimination of each county, *and* also differ between volunteers and draftees.

We also consider and provide evidence against two additional mechanisms: differential salience in the news of the Pearl Harbor attack and the possibility that Pearl Harbor triggered racism against the Japanese that spilled over to Black men.

To enrich our study and to shed light on the mechanisms and the context, we conduct supplementary analyses. Motivated by historical discussions, we investigate whether the discouraging effect of discrimination on Black enlistment was moderated or exacerbated by factors that are believed to have influenced Black attitudes towards WWII. The NAACP was known to have encouraged Black enlistment, while Black churches are believed to have been relatively ambivalent. Men living in states with a longer history as part of the Union are more immersed in American nationalism, which can, in turn, increase their motivation to enlist after Pearl Harbor. We find that the discouragement effect is larger in counties with an NAACP chapter and with a higher Black church membership rate, and smaller in magnitude in counties that spent more years in the Union.

This paper provides rigorous empirical evidence that discrimination reduces state capacity during wartime, possibly because it discourages the excluded group. We add to the large literature on discrimination, which has mostly focused on labor market outcomes.⁴ Our findings demonstrate a new channel through which racial discrimination can be socially costly. In this sense, we are most closely related to Fouka (2020). Governments of diverse societies usually implement two types of policies to minimize the political and social influence of discriminated minority groups: assimilation and/or exclusion. Fouka (2020) documents that German American volunteer enlistment during WWII was negatively associated with their exposure to aggressive assimilation policies. These findings, together with ours, show that both assimilation and exclusion can undermine state capacity during wartime. The two papers provide concrete examples of when the social contract binds (Hobbes, 1651; Locke, 1690; Levi, 1997). In this sense, our study on exclusion prior to the war complements those that argue for the importance of political inclusion during wartime (Besley and Persson, 2009, 2010).

We add another dimension to recent studies about the determinants of political participation and military behavior during WWII. For example, Cagé et al. (2023) finds that those connected with Petain were more likely to collaborate with the Nazis. Campante and Yanagizawa-Drott (2015) finds evidence of father-to-son transmission in the preference for fighting. Caprettini and Voth (2023) finds that support for WWII was higher in U.S. counties that received larger New Deal transfers.

Finally, we provide empirical support for the largely theoretical literature about nation building and the expansion of the franchise discussed at the beginning of the introduction, and complement recent empirical findings on the positive relationship between political participation and tax contributions in England after the Norman Conquest of 1066 (Angelucci et al., 2022), in German cities from the 13th to the 18th century

³Controlling for draft enlistment also addresses the concern that Black men from counties with higher levels of discrimination have lower baseline health and are more likely to be rejected by the Army for legitimate reasons.

⁴See Becker (2010), Chetty et al. (2020) and Derenoncourt et al. (2024) among others for an overview of the large literature about the consequences and the persistence of racial discrimination in the U.S.

(Becker et al., 2019), and recently, in the Democratic Republic of Congo (Weigel, 2020). Piecing together these empirical results forms a picture that is consistent with the idea that inclusion facilitates nation building and group division hinders the growth of nations and the efficacy of their policies (e.g., Alesina and Spolaore, 2005; Alesina and La Ferrara, 2005). Our finding that discrimination can undermine national identity complements the recent findings that common endeavors and inter-group contact can strengthen national identity and bond divided groups (Bazzi et al., 2019; Depetris-Chauvin et al., 2020).

The paper is organized as follows. Section 2 discusses the historical background. Section 3 discusses the conceptual framework. Section 4 describes the data. Section 5 presents the main results. Section 6 concludes.

2 Background

2.1 Discrimination

The U.S. entered WWII during the Jim Crow era, when racial discrimination against African Americans was severe (Althoff and Reichardt, 2024). Black men had very limited civil and political liberties, due to both formal and informal discrimination. Many southern states passed laws intended to disenfranchise the Black population starting in the 1890s. Racial segregation meant that the Black population had access to fewer and lower quality public and private goods (e.g., police protection, restaurants, schools, water fountains, buses). Interracial marriages were illegal in many states.

There was substantial geographic variation in the degree of discrimination within states, and discrimination was not isolated to the South. For example, between 1913 and 1948, 30 out of the then 48 states enforced anti-miscegenation (mixed-race marriage) laws. Many schools in Illinois, Ohio, Pennsylvania and New Jersey were completely segregated, even though it was *de jure* illegal. Similarly, white residents *de facto* enforced racial residential segregation in most northern and western cities (Logan and Parman, 2017; Shertzer and Walsh, 2019). Recent works find that within state variation can depend on factors such as exposure to violent battles during the Civil War (Masera et al., 2024) and the presence of white migrants from the South after 1860 (Bazzi et al., 2023a,b).

Social discrimination occurred together with economic discrimination. Black men had limited economic opportunities. War industrial policies were not yet in place during the early period of the war that we study. When they did come into place, Black workers benefited less than white workers (Davis, 1955).

2.2 WWII and Pearl Harbor

Imperial Japan conducted a surprise military strike against the U.S. naval base at Pearl Harbor in Honolulu, Hawaii, at 7:48AM on Sunday, December 7, 1941. In the attack, 2,403 Americans were killed and 1,178 others were wounded, and over 180 U.S. aircrafts were destroyed along with other physical military capital. The attack happened without a declaration of war amidst ongoing peace negotiations. Japan declared war on the United States later that day.

News of Pearl Harbor was immediately broadcast across the U.S. via all available forms of communication, including newspapers, radios, and churches. Congress officially declared war on Japan the following

day.⁵ For Americans, Pearl Harbor transformed WWII from a distant and foreign conflict about abstract ideas related to colonialism, democracy and fascism into a war of national self defense. Japan conducted additional strikes against the U.S. Pacific fleet in the following days, adding to the sense of a nation under attack among Americans.

The outcome of the war was highly uncertain at the onset. Motivating Black men, who constituted ten percent of the total number of eligible men, was seen by the governments of the United States and its allies as important for the success of the war effort. At the time of Pearl Harbor, the Axis powers were winning both in Europe and in Asia. Germany already controlled Western Europe, Operation Barbarossa on the Eastern Front was a disquieting success and many expected Germany to win the Battle of Britain. Japan had similar successes in Asia and the Pacific. Important future turning points for the war such as the Battle of Stalingrad, which ended in February 1943, and the Battle of Midway, which took place in June 1942, had not yet taken place. The U.S. entered the war with the expectation of needing to fully mobilize its economy and manpower for a long and drawn-out total war, much like the United Kingdom.

The perceived necessity of Black men was in conflict with the prevailing sentiment at the time, which was to keep Black men out of the Army. The ostensible concern was that Black soldiers would reduce the morale of white soldiers and empower Black resistance against Jim Crow (Osur and Force, 2000). The main way that white racial preferences influenced Black volunteers and conscripts was through local boards. We will discuss this in more detail later in the paper when we provide evidence against the possibility that our results are driven solely by the Army's demand of Black men.

At the onset of WWII, men could volunteer or be drafted into the military. Volunteers and conscripts were accepted into the military based on similar criteria (e.g., a health test). Acceptance rates of volunteers were unrelated to the local draft rates during this early period of the war. On December 5, 1942, an executive order banned volunteers so that the government could have full control over the labor force.

Military assignment did not depend on whether the man volunteered or was conscripted; nor did it depend on the county of residence, which in our study and data refers to the county where a man registered for selective service in 1940. Once inducted, an enlisted man's occupation in the military depended on factors such as education and occupation prior to enlistment, as well as race. Men had little discretion over occupations or assignments within the Army (Flynn, 1993; Ferrara, 2022). Military wage compensation did not vary by race within grade, rank, years of service and factors such as having a specialist rating. Black soldiers earned less than white soldiers with similar qualifications mostly because they were inducted into a lower grade and rank, and faced more difficulty in qualifying for specialist ratings.

Our main analysis focuses on the eight weeks before and the eight weeks after Pearl Harbor. 98.9% of Black men were inducted as privates in our sample period. The rate is nearly identical between volunteers and conscripts.

Procedures for volunteer and draft enlistment were already in place and experienced little change during this short window of time. There were similarly little changes in the operations of Army recruitment or eligibility criteria within this period. The one exception was the expansion of the age range of eligible men,

⁵Germany declared war on the U.S. four days later, marking the American entrance into both the European and the Pacific fronts.

which the empirical analysis will take into account.⁶

Race relations within the U.S. military mirrored those of the nation. Black and white soldiers were segregated until 1948. During WWII, they had separate canteens, barracks, nurses, and even blood banks. Black soldiers served under Black or white officers. White soldiers only served under white officers (e.g., Flynn, 1984).

2.3 Contemporary Discussions

When WWII erupted, a heated debate emerged within the Black community. On the one hand, some viewed military service as a hard-earned right. Many hoped that military service would be an effective way to signal the value of Black citizens to the United States, and that this would reduce future discrimination. On the other hand, there was much disappointment in the lack of social progress following WWI. The worst WWII atrocities, such as the Holocaust and Camp 731 in Manchuria, were not yet known. Many Americans during this early period viewed the discriminatory policies of the U.S. as little better than those prevailing in the Axis powers. For example, prior to Pearl Harbor, in 1937, *The New York Amsterdam News* wrote “[Nazis’ plan to segregate Jews on German railways was] taking a leaf from United States Jim Crow practices”.⁷ The Harlem-based Negroes Against War Committee urged Black Americans throughout 1939 and 1940 not to become interested in the events overseas. *Pittsburgh Courier* columnist George Schuyler asked “Why should Negroes fight for democracy abroad when they are refused democracy in every American activity except tax paying?” (Jefferson, 2008, p. 28-61).

In response to low Black enlistment rates at the beginning of WWII and the escalation of the war, the U.S. government embarked on an extensive recruitment campaign starting in the spring of 1942, after the period of our main analysis. The campaign was not one decisive change, but rather a series of efforts from different parts of the military and government. The efforts were mostly symbolic and very little changed in terms of discrimination in American society or the Army. Nevertheless, the Black community, particularly organizations such as the NAACP, invested in increasing enlistment. Most famously, the Double V Campaign encouraged Black men to fight for victory abroad so as to obtain a victory at home.

To isolate the full impact of discrimination and avoid possibly confounding influences from war industrial policy, propaganda efforts and military shifts in the war (e.g., victory at the Battle of Midway), the analysis focuses on the two months immediately after the attack on Pearl Harbor, before these other changes took place.

⁶The Selective Training and Service Act (STSA), signed by President Roosevelt on September 16, 1940, established the first peacetime draft in the United States. It required the registration of all men between the ages of 21 and 35, with selection for one year’s service by a national lottery. After Pearl Harbor, on December 20, 1941, Congress passed Public Law No. 360, which allowed the STSA to extend the term of service to the duration of the war and an additional six months, and expanded eligible ages to 18 to 64.

⁷There were many explicit comparisons of the U.S. to the Nazis. In 1935, *The New York Amsterdam* wrote “If the Swastika is an emblem of racial oppression, the Stars and Stripes are equally so....”. Langston Hughes in 1935 wrote “..You tell me that Hitler / Is a mighty bad man / I guess he took lessons from the Ku Klux Klan [...] I ask you this question / Cause I want to know / How long I got to fight / BOTH HITLER — AND JIM CROW”. The ostensible pointlessness of fighting is articulated in 1939 by Black writer, C. L. R. James, when he wrote “Why should I shed my blood for the whole Jim Crow, Negro-hating South, for the low-paid, dirty jobs for which Negroes have to fight, for the few dollars of relief and insults, discrimination, police brutality, and perpetual poverty to which Negroes are condemned even in the more liberal North?”

3 Conceptual Framework

The empirical analysis examines the effect of discrimination and political exclusion on support for the U.S. government during wartime, which we will proxy for with volunteer enlistment rates. As we discussed in the Introduction, this effect can be positive or negative in principle. In the next section, we document that the forms of discrimination discussed in this section – social, economic, political, formal and informal – varied across counties. This section focuses on the relationship between discrimination and Black volunteer enlistment rates.

First, consider the negative forces. Discrimination and exclusion lower the economic (extrinsic) incentives for Black men to enlist. A man presumably enlists to help win the war and contribute to the continuation of the regime. But discrimination and exclusion lower the social and private value from winning by reducing economic opportunities and political and social rights. Black men were kept out of the best jobs, were effectively disenfranchised and their property and person were given little protection by the state. Discrimination and exclusion can also lower the psychological (intrinsic) motivation to enlist. This has been the focus of the studies about motivations to fight (McPherson, 1997; Ager et al., 2021; Marchais et al., 2021; Jha and Wilkinson, 2023). Enlistment is partly motivated by patriotism and a person’s national identity and discrimination can weaken both. Intuitively, this is the flip-side of how joint efforts towards common objectives facilitate the unification of national identities (Depetris-Chauvin et al., 2020). A man’s intrinsic motivation can also depend on the legitimacy of the government and racial discrimination reduced the legitimacy of the U.S. government for the Black community (Levi, 1997). Discrimination undermined the credibility that the U.S. government was fighting for freedom and democracy.

Discrimination extended beyond government policy. The Black population was subjected to constant informal discrimination and harassment. Black soldiers were known to have been harassed and subjugated (beyond what was dictated by official policy). In a social contract framework, informal discrimination can also undermine the relationship between Black men and the government if Black men believe that the government is supposed to provide security.

Second, consider the positive forces. Men who are politically excluded and disenfranchised may see a closely contested war as an opportunity to demonstrate their value to the establishment. The efforts of the discriminated group could be the difference between victory or defeat, and Black men may have viewed WWII as a chance to show that their cooperation was necessary for the good of all Americans. This was the spirit of the Double V Campaign for encouraging Black enlistment later in 1942. It was also a common view amongst Black men during WWI (Williams, 2010) and Colonial Indian men during WWII (Karnad, 2015).

Peer effects can amplify the forces described above. A man’s motivation to enlist can be influenced by the actions of other individuals in the same network (e.g., Cagé et al., 2023). A Black man’s decision to enlist will be positively correlated with the enlistment decisions of his neighbors and peers. Since our measure of discrimination varies at the county level, the estimates in this paper capture these social effects.

The discussion in this section highlights the main channels through which discrimination can influence the motivation of men to volunteer – i.e., the supply-side effect of discrimination. After we present the main results, we discuss alternative mechanisms – i.e., demand-side factors.

4 Data

4.1 Enlistment

Enlistment is reported at the individual level in the *World War II Army Enlistment Records* (NARA-AAD, 2002) for the period 1938-1946. The dataset includes the universe of 9,039,840 individual service records (induction cards) of American soldiers who served in the Army from 1938 to 1946 and were digitized by the National Archives. The individual-level data include information about the date of induction, birth year, education, occupation, marital status, race, citizenship, volunteer status, branch, rank and county of residence. In most cases, the demographic and socio-economic information was reported for Selective Service in 1940, more than one year before Pearl Harbor. This mitigates concerns about endogenous location (and other characteristics) in response to the U.S. entry into WWII.

Induction sometimes occurred after a volunteer applied or after the receipt of a draft “call-up” notice. During the early stages of the war, this was mostly due to the lack of adequate facilities for housing and training and was similar for volunteers and conscripts.

The main analysis uses a sample that includes Black and white men. Together, they account for more than 93% of all individuals in the enlistment data. The baseline sample includes 2,306 counties in the 48 mainland states.⁸ The counties that lack variation in enlistment rates during the time frame of our analysis are excluded from the sample. Some states do not have information from all Army boards. We will later show that the results are similar if we omit these states from the analysis.

The sample includes the eight weeks before and the eight weeks after the Pearl Harbor attack. We normalize enlistment by the number of eligible men in each county-race-week and conduct the analysis at this level. For consistency, all descriptive statistics and regressions presented below are weighted by the number of eligible men.

The main outcome of interest in our analysis is the enlistment rate – the number of volunteers of each race in each county and week for every 100,000 eligible men. We use the 1940 full-count U.S. Census to calculate the number of eligible men and adjust the denominator to account for the expansion of eligible ages on December 20, 1941. We also use the 1940 Census and many other data sources for control variables. We discuss these later when relevant. We interpret voluntary enlistment as reflecting motivation to participate in the war and support of the U.S. government when it is under threat. We provide evidence against alternative interpretations after presenting the main result.⁹

4.2 Discrimination

We construct a parsimonious measure of discrimination by calculating the first principal component of political, social and economic discrimination for the county of enlistment. We include variables that are commonly used to measure racial discrimination during the early 20th century that vary at the county level and that are available for the entire country: the presence of the Ku Klux Klan (KKK) from 1915 to 1940,

⁸See Online Appendix Table A.1 for detailed, individual-level summary statistics for all men (Panel A), Black men (Panel B) and white men (Panel C).

⁹Army personnel (discharge) records provide an alternative measure of motivation and performance. Unfortunately, most service records from this period were destroyed in a fire. Data on medals and awards cannot be systematically linked to enlistment records.

the number of lynchings until 1939, the Democratic vote share in Congressional and presidential elections between 1900 and 1930, the index of residential segregation, the racial gap in years of education and the racial gap in income inequality. Racial discrimination is highly persistent over time and the enlisted men in our sample are young: the average age is 23 (see also Online Appendix Table A.1). Thus, our discrimination measure broadly reflects a person's own experience and that of his community. There is substantial variation within states.¹⁰

We conduct several exercises to validate the discrimination measure, which are discussed in Section 5.3.2. Here, we explore the relationship between the index of discrimination and several, county-specific variables. To this end, we estimate separate regressions that correlate the index of discrimination with a number of potential correlates, measured in 1940, while controlling for state fixed effects (to exploit within state variation). As in the regression analysis, we weigh each county-year observation by the number of eligible individuals during the sample period. Results are presented in Table 1. Each row is one regression. The explanatory variable is reported in the row heading. The sample mean and standard deviation of that variable are reported in columns (1) and (2). The standardized correlation coefficient is reported in column (3).

Panel A shows that counties with higher levels of discrimination are larger in population and more urbanized. Discrimination is higher in places with larger Black populations and smaller white populations, and higher in places that are further away from Pearl Harbor. Panels B and C examine the correlates of discrimination for Black and white men separately. The main take-away is that the correlates can differ in size and even sign for the two groups. For example, discrimination is positively associated with the share of Black men working in agriculture, but negatively associated with the share of white men working in agriculture.

The correlations show that discrimination is not random and is correlated with economic and demographic factors that can influence the decision to enlist. The baseline regressions will address these omitted variables by controlling for two-way fixed effects. Panels B and C also show that the correlates of discrimination can differ between Black and white men. We address this after we present the main results by additionally controlling for a large number of county-race-specific variables interacted with week fixed effects.

4.3 Enlistment Rates Over Time

During our study period, from week -7 to week 8 since Pearl Harbor, 2,025 and 108,962 Black and white men volunteered in the Army. Taking into account the eligible population of either race, the Black and white volunteer rates per 100,000 eligible men between week -7 and week 8 are 60.03 and 323.6, respectively. Online Appendix Table A.3 presents the mean and the standard deviation of volunteer enlistment rates during our study period for Black and white men pooled together (Panel A) and separately (Panels B and C). It shows that the average volunteer rates in the pre-Pearl Harbor weeks were 6.84, 0.115 and 13.38 for the two races combined and for Black and white races, respectively. As expected, they are substantially higher

¹⁰See Online Appendix Table A.2 for the sources of the variables used to measure discrimination. Online Appendix Figure A.1 plots the index of discrimination demeaned by state fixed effects.

in the post-Pearl Harbor weeks, increasing to 39.66, 8.82, and 46.28, respectively.¹¹ Figure 1 plots volunteer enlistment rates for Black and white men during the eight weeks before and the eight weeks after the attack on Pearl Harbor.¹² Consistent with the historical narrative that discrimination discouraged Black volunteers during this period, Black enlistment was lower than white enlistment before and after Pearl Harbor. After Pearl Harbor, enlistment rates for both white and Black men sharply increase, but the magnitude of the increase is smaller for Black men.

These patterns are interesting for several reasons. The surge in overall enlistment after Pearl Harbor is consistent with the notion that the sudden attack motivated men to join in defense of their nation. The fact that white men volunteered at higher rates than Black men after Pearl Harbor is consistent with discrimination discouraging Black enlistment. The fact that the Black-white gap widens after Pearl Harbor suggests that at least part of the post-Pearl Harbor gap reflects Black-white differences in their support for the U.S. regime. This is relevant for our study because military service is more important for the survival of the U.S. regime when the latter is under the threat of war than during peacetime. In the theories of nation building that we discussed in the Introduction, political exclusion and discrimination are important because they affect the regime’s survival precisely when it is under threat.

Next, we divide the sample into counties with discrimination levels above and below the sample median. Figure 2 shows that after Pearl Harbor, the rise in Black enlistment is much larger in magnitude for counties with low levels of discrimination. Note that when we zoom in on the pre-Pearl Harbor period, we observe that Black enlistment is very low, but has positive values in most weeks in both samples (Online Appendix Figure A.2).¹³ Figure 3 shows that the enlistment of white men, who did not face racial discrimination, is similar in the two subsamples of counties after Pearl Harbor. Figure 2 is consistent with discrimination reducing the increase in Black enlistment after Pearl Harbor. Figure 3 also indicates that racial discrimination did not motivate white men to volunteer more (for instance, to demonstrate white supremacy).

Figure 4 combines the figures just described and illustrates the variation underlying the regression estimates in the next section, which compares the difference in enlistment between counties with varying levels of discrimination, between Black and white men, before and after Pearl Harbor.

5 Results

5.1 Baseline Estimates

The baseline regression estimates the heterogeneous treatment effect of Pearl Harbor on volunteer enlistment rates for Black and white men, and allows the effect to vary with the extent of racial discrimination in the county of residence. While enlistment records are available for those who served, we cannot observe individuals who did not volunteer. For this reason, we conduct the analysis at the county-race-week level, and estimate the following equation:

¹¹The number of observations in the table varies across weeks, because we restrict attention to county-race-week cells that can be included in our baseline regression (in a few cases, race-week-county cells are dropped with the inclusion of fixed effects).

¹²To have a fully symmetric window around the attack on Pearl Harbor, we consider the eight-week period before Pearl Harbor (week -7 to week 0) and the eight-week period afterwards (week 1 to week 8). Week 0 is defined as the week ending on Sunday December 7, 1941, and week 1 is defined as the week starting on Monday December 8, 1941.

¹³Online Appendix Figure A.3 plots the analogous graph for white volunteer enlistment.

$$y_{ijt} = \alpha + \beta D_j \times P_t \times B_{ij} + \theta_{ij} + \lambda_{it} + \pi_{jt} + \varepsilon_{ijt} \quad (1)$$

The volunteer enlistment rate as a share of eligible men of race i in county j during week t , y_{ijt} , is a function of: the triple interaction of discrimination in county j , D_j , a dummy variable that equals one for the eight weeks after the attack on Pearl Harbor, P_t , and a dummy variable that equals one if race i is Black, B_{ij} ; fixed effects at the race-week, λ_{it} , county-week, π_{jt} , and county-race levels, θ_{ij} . The lower order terms are absorbed by the fixed effects. Standard errors are clustered at the county level. Regressions are weighted by the race-specific population of eligible men in each county-week in order to make the estimated coefficients as close as possible to those that would be obtained by estimating individual level regressions.¹⁴

We interpret the Pearl Harbor attack as a sudden increase in the threat to national security and hypothesize that a man's reaction to it depended partly on his support for the American regime. The latter, in turn, depends partly on the extent of discrimination that he and his community faced. One can also interpret Pearl Harbor as a shock to the demand for volunteers, which allows the econometrician to trace out the supply curve of volunteers that varies with discrimination. The coefficient of interest is β . If discrimination and political exclusion undermine a man's support for the government during wartime and this negative effect dominates the positive signaling value of enlisting, then $\beta < 0$. In contrast, if the positive signaling value dominates the negative discouragement effect, then $\beta > 0$.

This specification controls for a large number of fixed effects to account for potential omitted variables that might be correlated with both discrimination and Black enlistment. County-week fixed effects control for differences across counties that may have varying effects over time, such as distance to Pearl Harbor or urbanization. Race-week fixed effects control for differences across races that may have varying effects over time, such as the racial gap in education. We also control for county-race fixed effects, which absorb time-invariant factors that vary by race and county, such as age or the employment share in key sectors like manufacturing or agriculture. For an omitted variable to confound our triple interaction of interest, it would need to differ by county, time and race, be correlated with county-level racial discrimination, *and* not be accounted for by the baseline controls. We minimize this possibility by focusing on a narrow window of time around the attack. We will also present many robustness checks after the main results, including the interaction of county-race-specific variables with week fixed effects.

Note that racial discrimination was pervasive throughout the United States during the period that we study and Black men faced discrimination everywhere. This means that our analysis will likely underestimate the influence of discrimination on enlistment.

Table 2 presents the baseline estimates. To illustrate the influence of the fixed effects, columns (1) to (3) begin by including the lower order interaction terms instead of the interacted fixed effects. Column (1) controls for state fixed effects and a dummy variable that takes the value of one if the Pearl Harbor attack has occurred. Column (2) controls for county instead of state fixed effects. Column (3) additionally controls for week fixed effects instead of the post-Pearl Harbor dummy variable. The triple interaction coefficient of interest is stable across specifications. It is negative and statistically significant at the 1% level. It shows that in places with more racial discrimination, the Black-white gap in volunteer enlistment increased after Pearl

¹⁴In Section 5.3.2, we verify that results are robust to accounting for spatial correlation in the error term.

Harbor. The triple interaction and the lower order interaction coefficients are consistent with the descriptive evidence presented in Figure 4.

In column (4), we present the baseline specification that includes race-county, race-week and county-week fixed effects. The fixed effects absorb the lower order interactions. The interaction coefficient of interest in column (4) is -2.80 and statistically significant at the 1% level. Thus, the discouragement motive dominates the signaling motive.

To assess the magnitudes, note that one standard deviation of the pre-Pearl Harbor Black volunteer enlistment rate is 6.4. The coefficient implies that after Pearl Harbor, a one standard deviation increase in discrimination (1.5) reduced Black volunteer enlistment by 0.66 standard deviations ($(-2.80 \times 1.5)/6.4 = 0.66$, or 4.22 per 100,000 eligible individuals). Since the average Black volunteer enlistment rate during the sixteen week period of our analysis is 6.01 per 100,000 and the inter-quartile range of discrimination is 1.41, our estimates imply that enlistment rates for Black men living in a county at the 25th percentile of discrimination were 66% ($(-2.80 \times 1.41)/6.01 = 0.66$) higher than for those living in a county at the 75th percentile.

One potential concern is that, despite the sudden and unexpected nature of the shock on Pearl Harbor, our results are driven by pre-trends in volunteer rates. Figure 4 goes against this idea, showing that volunteer rates evolved along parallel trends in the weeks prior to Pearl Harbor. To more formally examine the presence of pre-trends in our data, Online Appendix Table A.4 implements the test outlined in Roth (2022).

Another potential concern with our baseline estimates is that we may be mis-measuring wage discrimination by not accounting for within-occupation income inequality by race. To address this concern, we replicate the procedure detailed in Jácome et al. (2021) to calculate race-specific occupational income scores. We report results in the second dot from the top in Figure 5, where we also present 95% confidence intervals. Reassuringly, the estimates obtained using the disaggregated measure are similar to the baseline (reported in the top dot to ease comparisons).

Next, to understand the variation driving our baseline estimates, we replicate the baseline including state \times race \times week fixed effects, which controls for race-specific differences across states and their changes over time in a fully flexible manner. The estimate, reported as the third dot in Figure 5, is -3.216 and statistically significant at the 1% level. This suggests that the baseline result is mostly driven by within state and race differences in volunteer enlistment, rather than cross-state variation such as diverging responses to Black enlistment between the North and South after the Pearl Harbor attack.

The baseline estimate is weighted by the number of eligible men for each race and county measured in 1940 to approximate aggregate population effects. In the fourth dot in Figure 5, we estimate unweighted regressions, where all county-year observations have the same weight. The triple interaction coefficient is negative (-9.853) and statistically significant at the 1% level.

Finally, we estimate the baseline without the states with incomplete induction data (Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming). The estimate is very similar to the full sample estimate.¹⁵

¹⁵Online Appendix Table A.5 reports the estimates from Figure 5 in tabular form.

5.2 Alternative Interpretations

The empirical findings show that the severe and pervasive racial discrimination moderated the positive response of Black volunteer enlistment after the Pearl Harbor attack. This is consistent with the hypothesis that discrimination reduced state capacity during wartime. One explanation for the result is that discrimination discouraged Black men from enlisting. As we discussed in Section 3, this could be due to extrinsic or intrinsic motivations, and could be due to discrimination from official government policy or discrimination experienced by Black men and their communities in their day-to-day lives.

5.2.1 Variations on the Demand Side

The main alternative explanation is that Black men in high discrimination counties were motivated to enlist, but were physically prevented from doing so by local Army Boards who wanted to keep Black men out of the military.

Prior to Pearl Harbor, around 6,000 local boards were established to administer enlistment and the members, almost all white, were chosen from the local community.¹⁶ Local boards that wished to keep Black men out of the Army often did so during pre-induction health examinations (Lee, 1966) and literacy tests (Dalfiume, 1969). Black men were also turned away at the beginning of WWII because many Army bases lacked the physical capacity for housing and training Black men. Since the Army was segregated and there had been very few Black soldiers prior to Pearl Harbor, many bases were unable to absorb Black enlistees right after the surprise attack. If those in counties with higher levels of discrimination were more resistant to Black soldiers or had to turn away Black men because they had less capacity to house and train them, then our results may be partly driven by demand-side forces.

We are able to partially address this alternative mechanism by controlling for the draft enlistment rate for each race, county, and week. Our logic is that discriminatory draft boards would have also tried to keep Black draftees out of the Army, and that the physical housing and training constraints were similar for Black volunteers and draftees who were pooled together after induction.

The draft lottery was implemented by the federal government. But, in practice, local boards were given discretion to make decisions based on the standards and needs of their communities. The local board oversaw the selective service registration process and received deferment or conscientious objector requests and other appeals (see Harper et al., 2007, pp. 19-21, and Bailey, 1977). The causes for disqualification (e.g., health) were similar for conscripts and volunteers. A local board that wished to keep Black men out of the military could have, if anything, more easily reduced the number of Black draftees than that of Black volunteers. For drafted men, the board controlled both which men to call up and who to reject. For volunteers, the board only controlled who to reject.

The housing and logistical capacity of regional facilities for Black soldiers were similar for volunteers and conscripts. Volunteers and drafted men were pooled together after induction, living and training in the same facilities.

We present results in Table 3. Column (1) re-states the baseline for comparison purposes. Column (2) examines draft rates as the dependent variable. The estimate is positive and statistically imprecise. The

¹⁶See Davis (1955), Table 1, page 34.

standardized coefficient is presented in square brackets. Compared to the estimate for volunteers, it is very small in magnitude. The estimates imply that discrimination had no effect for Black draft enlistment. This supports our interpretation that the estimates for volunteers are not confounded by demand-side forces. It also alleviates concerns that counties with higher discrimination drafted more Black men, which can mechanically reduce Black volunteer rates.

Column (3) shows that the triple interaction coefficient is similar to the baseline (column 1) when we control for race-county-week specific draft enlistment rates. The results are similar if we replace the contemporaneous draft rate with its one week lag (column 4), or with the interaction between week dummies and the baseline county-race draft rates (column 5). Controlling for draft rates also addresses the concern of a mechanical relationship between conscripts and volunteers.

These results support the interpretation that discrimination discouraged Black men from enlisting. We acknowledge that our estimates will capture other forces if they vary for Black and white men, across counties with different levels of discrimination, *and* differ for draftees and volunteers. We conducted an extensive review of the historical literature on this period. As discussed in the Background section, there are many accounts and narratives that suggest high degrees of racial discrimination against Black men in the military. However, we found no mention of differential treatment for Black volunteers versus conscripts. Similarly, if white civilians who wished to keep Black men out of the military physically stopped Black men from enlisting, this could bias our results if the white men targeted volunteers over drafted men. We have not come across accounts of such systematic targeting in the historical literature.

Finally, in columns (6) and (7), we control for two proxies for the local capacity of the Army to train and house Black men. The first one is the number of Black and white officers as a share of all eligible men. We calculate this variable for each race and county using the occupation and race information in the 1940 Census and control for its interaction with week fixed effects. The second one is the distance from the nearest military base. We control for its interaction with race and week fixed effects.¹⁷ The coefficient of interest is robust to including these additional controls.

5.2.2 News Coverage of Pearl Harbor and Changes in Racial Views

One may also wonder whether the salience of Pearl Harbor and America's entry into the war was lower for Black men in counties with higher discrimination. This seems unlikely *ex ante*, given that the attack was reported immediately throughout the entire nation. Moreover, county-week and race-week fixed effects account for the possibility that news penetration differs by population density or the size of a county. County-race controls interacted with week fixed effects (discussed below) account for the possibility that factors such as differential residential, demographic or occupational patterns can affect news access.

To be cautious, we examine coverage in local newspapers, the main news platform alongside radio. We conduct a search for articles that mention the terms "Pearl Harbor" and "Japs", the derogatory term for the Japanese. To account for differential newspaper length across papers and time, we normalize by the number

¹⁷We collected data on the location of all Army camps and bases that were active as of December, 1941 from multiple sources and calculated the distance to each county centroid.

of pages containing the word “and”. Thus, our coverage measure reflects the share of coverage in a given paper and week.¹⁸

Panels A and B of Figure 6 show that there is little difference between high (solid line) and low (dashed line) discrimination counties. We find similar patterns when we examine articles with the terms “We Need You” (Panel C) “Army” (Panel D), amongst the most used phrases in Army recruiting. Coverage was also similar between Black and white mainstream papers. For example, all papers had at least one front page mention of Pearl Harbor or the war in the newspaper everyday for the first month after the attack. The descriptive evidence is consistent with the conventional wisdom that news of Pearl Harbor was unlikely to have systematically varied across counties with different levels of discrimination or between Black and white men.¹⁹

5.2.3 “Spillover” Racism

Given that propaganda against Japan after the Pearl Harbor attack contained a high degree of racial prejudice against the Japanese, one may question whether this spilled over and affected racism against the Black population. Spillover racism would affect our estimates if it varied with discrimination against the Black population. The spillover can be positive or negative. On the one hand, the sudden appearance of an external threat might have created a sense of unity between the white and the Black population. On the other hand, Pearl Harbor may have increased hostility against all minorities. The effect of the spillover on Black enlistment is also ambiguous *ex ante*. Solidarity between Black and white populations can encourage Black men to enlist. However, Black men may also be motivated to enlist more in places where spillover racism is negative, as a means to distinguish themselves from the Japanese.

To investigate the influence of spillover racism, we examine whether the number of racist articles against the Black population increases after Pearl Harbor and differs between high and low discrimination counties. Specifically, we count the number of articles in local newspapers that contain the word “Negro” and a series of racially disparaging stereotypes.²⁰ Figure 7 plots weekly averages for counties above (solid line) and below (dashed line) the sample median for discrimination. As expected, newspapers in counties with higher discrimination have a higher frequency of racial stereotypes in all weeks. However, there is no increase after Pearl Harbor for either sub-sample and the gap between the two remains constant overtime. Thus, there is no evidence that Pearl Harbor triggered additional racism towards the Black population.

5.2.4 Opposition to the Nazis

At the beginning of WWII, the Nazis were considered a greater threat than the Japanese by most Americans. According to a Fortune/Roper poll conducted during the week following Pearl Harbor, 47% of respondents

¹⁸Local newspapers data come from the website Newspapers.com. Data are available for 584 of the 2,306 counties in our main sample.

¹⁹Note that Black-oriented radios did not exist before 1947 (Reed, 1974; Barlow, 1999). Below, we control for radio ownership at the household level (see Section 5.3.2).

²⁰To compile the list of derogatory terms most commonly used in our historical context, we follow Fouka et al. (2022). As before, we normalize by the number of pages containing the word “and”.

thought that Germany “was more of a ‘menace’ to Americans than Japan”, 32% viewed the two countries as equally threatening, and only 10% considered Japan a larger threat than Germany. It was not until around ten months after Pearl Harbor that polls showed Americans viewing Japan as a greater threat than Germany.²¹

Concerns about Germany can cause differential Black volunteer enlistment if they vary with county-level discrimination. It was well known that Nazi racial theory was partly inspired by American racial theory (Kuhl, 2002; Kakel, 2011). If our results partly capture Black opposition to the Nazi regime because Pearl Harbor gave salience to Nazi racial theory and Black men who had faced more discrimination were more motivated to oppose the Nazis, then our main estimates understate the negative effect of racial discrimination in the U.S. on Black volunteer rates.

5.3 Robustness

5.3.1 Outside Opportunities

The main empirical concern about the causal interpretation of our baseline estimate is omitted variables. Specifically, factors that vary by county and race and change after Pearl Harbor that are correlated with discrimination and enlistment are not accounted for by the two-way fixed effects in the baseline specification. In our context, an important concern is that the Black-white difference in the opportunity cost of enlisting varies with discrimination and changes as the U.S. enters into WWII. Black men gained less than white men from the war industry that arose after Pearl Harbor and the gap likely varied with discrimination across counties because the use of federal money and employment was locally administered.²² This is unlikely to confound the triple interaction effect of interest because most of these changes occurred after our study period. However, one may question whether enlistment decisions were made in anticipation of future government investment.

We address this concern in several ways. In Figure 8, we augment the baseline specification interacting week fixed effects with county-race specific variables, measured in 1940. First, we consider the fact that economic opportunities differ by employment status and age. We control for average employment rates and the average age of eligible men for Black and white men in each county in 1940. We control for their interactions with week fixed effects because these variables are time invariant and their influence on the opportunity cost evolves with the development of the war.²³ The estimates are similar to the baseline (reported at the top of Figure 8 to ease comparisons).²⁴

Following a similar logic, we interact week fixed effects with the county-race-specific share of employment in each 1-digit sector. This is motivated by the fact that economic opportunities, and thus, the opportunity cost of enlisting, varied across sectors. We alternately introduce the controls for each sector into

²¹See <https://ropercenter.cornell.edu/blog/polling-and-pearl-harbor>.

²²Among the 1,630 defense job training courses financed by a \$60 million fund appropriated by Congress in 1940, only 194 accepted Black applicants. In 1942, Black individuals accounted for only 0.7% of essential war production workers. In 1943, this number had only risen to 1.3%. In January 1942, only 25% of the heads of several hundred companies that held war contracts stated in a U.S. Employment Service survey that they planned to hire Black workers. 51% stated that they did not plan then or in the future to ever employ Black workers (Davis, 1955).

²³We do not control for the interactions of the Black-white occupational income score gap because this variable is used to construct the discrimination principal component.

²⁴See Online Appendix Table A.6 for the corresponding estimates in tabular form.

the baseline specification. Figure 9 plots the main triple interaction coefficient and 95% confidence interval from these regressions.²⁵ The first dot from the left is the coefficient from the baseline specification and the subsequent ones going towards the right display results controlling for these additional variables. The magnitude and the precision of coefficients are similar to the baseline.

Second, we consider the notable increase in female labor supply during WWII (Acemoglu et al., 2004; Goldin and Olivetti, 2013) and the fact that this may increase labor market competition for Black men. Most of the increase occurred after our study period, but we control for these potential changes out of an abundance of caution. Black and white women differed in labor supply and faced different economic opportunities, which implies that the degree to which they competed with Black and white men in the labor market also differed. Thus, we control for the interaction of week fixed effects and county-race-specific female labor supply. In Figure 8, we alternately measure female labor supply as female labor force participation, the number of women in the labor force relative to the number of men who were eligible to serve, and the share of women between ages 15 and 35. The last measure is motivated by Goldin and Olivetti (2013), which finds that women in this age range were particularly likely to enter the labor force during WWII. In all cases, the estimates are robust (see also Online Appendix Table A.6).

The opportunity cost of enlisting was particularly high for farm owners. In fact, later in the war after the period that we study, farm ownership was a key consideration for obtaining a deferral or exemption from the draft (Geva, 2013). This can bias our results if Black men were less likely to be farm owners in counties with higher levels of discrimination. The earlier results show that our findings are robust to controlling for the interactions of week fixed effects and the share of Black and white employment in agriculture. But not all those employed in agriculture own farms. In Figure 10, we address this concern more directly by controlling for the interaction of week fixed effects with different measures of farm ownership reported in the 1935 Census of Agriculture.²⁶

These are the race-county specific measures of: the number of individuals living in farms, the number of farms, the number of farm owners, and the number of farm operators other than owners. The latter variable also includes tenants. This is important as white landowners in counties with high levels of discrimination may have been motivated to prevent Black men from enlisting because of suppressed Black labor costs in these areas. Reassuringly, results are in line with those from the baseline (reported at the top of Figure 10). In the subsequent three dots, we also report estimates obtained interacting week dummies with the acres of land in farms (of all operators, owners, and operators who were not owners of either race).

To further address the concern that white landowners may have opposed Black volunteers, in the remainder of Figure 10, we control for the interaction of week fixed effects, the Black dummy variable and proxy variables for Black labor coercion identified in earlier studies and obtained from the 1940 Census

²⁵The coefficients and standard errors are reported in Online Appendix Table A.7.

²⁶We use the 1935 rather than the 1940 Census of Agriculture because only the former reports the number of owners and non-owners by race. Results are unchanged when using the 1940 Census of Agriculture to measure the total number of farms, the number of people living in farms, and land in farms (by race, but not separately by owner status). See Online Appendix Table A.8, Panel A, for the corresponding estimates in tabular form. The number of observations in columns (4), (5), (7) and (8) is lower than in other columns because information on ownership as opposed to other forms of land use (e.g., tenancy) is not available for all counties.

of Agriculture.²⁷ First, we consider average farm size and the average value of land in farms. These variables capture the idea that landowners’ coercive power was increasing in farm size (Spencer, 1994). Next, we include the share of farms with horses or mules and the average number of horses or mules per farm. These controls address the concern that opposition to Black volunteer enlistment might have been higher in counties where mechanization was lower and landowners were thus more reliant on Black labor (Woodruff, 1994; Hornbeck and Naidu, 2014). Following a similar logic, the remaining two dots control for the share of farms with tractors and the number of tractors per farm. The triple interaction coefficients of interest are very similar to the baseline.

5.3.2 Additional Sensitivity Checks

We conduct several additional sensitivity checks. One concern is that our results may be driven by a few observations with extreme values that might be particularly influential. To address this potential issue, we perform a randomization inference exercise in the spirit of Young (2019). We randomly assign the discrimination measure across counties and re-estimate the baseline specification. We do this for 1,000 iterations. Online Appendix Figure A.4 is a density plot of the coefficients. The dashed vertical line corresponds to the coefficient from the baseline using the actual data (i.e., the number reported in column 4 of Table 2). The results show that our baseline estimate is unlikely to be driven by coincidence.

Next, we examine whether results are robust to controlling for variables that may be correlated with discrimination and have a differential effect on race-specific enlistment before and after Pearl Harbor. We present results in Figure 11 (see also Online Appendix Table A.9, Panel A). The first dot at the top of the figure restates the baseline for comparison. Then, we control for the interaction of week fixed effects with cross-county net migration for each race between 1930 and 1940 estimated by Gardner and Cohen (1992).²⁸ This addresses the concern that migration rates were correlated with discrimination and enlistment. Next, we control for the county-specific rates of race change from Black to white in the 1930 and 1940 U.S. Population Censuses estimated by Dahis et al. (2019) interacted with the Black and the post-Pearl Harbor dummy variable.²⁹ This addresses the concern that race misclassification in the census was correlated with discrimination and changes in Black volunteer enlistment after Pearl Harbor.

In the subsequent four dots, we plot estimates obtained when controlling for proxies of exposure to events that may have influenced Black men’s attitudes about the U.S. armed forces. The first African American U.S. Army Air Force was trained in Tuskegee, Alabama. One of the most prominent attacks on the Black community occurred in Tulsa, Oklahoma, in 1921 (e.g., Albright et al., 2021). Ramos-Toro (2021) finds that Civil War refugee camps were conducive to the development of racially-progressive politics, which persisted over time. Dippel and Heblich (2021) documents that the historical presence of (emigrated) leaders of the failed 1848-1849 German revolution (the “48ers”) is associated with stronger support for racial equality in the long run, possibly influencing Black Americans’ incentives to volunteer. We control for

²⁷See Online Appendix Table A.8, Panel B, for the corresponding estimates in tabular form.

²⁸Recall that the location observed in the NARA dataset is usually the location in 1940, which moderates concerns of endogenous location in response to WWII.

²⁹The number of observations is slightly different due to the limited availability of the additional control.

distance to Tuskegee, Tulsa, the nearest refugee camp and the nearest 48ers settlement.³⁰ We also interact week fixed effects and the Black dummy with a dummy equal to one if there is at least one active Black newspaper in the county in 1941.³¹

In the latter part of Figure 11 (and Online Appendix Table A.9, Panel B), we control for additional variables that may have been important for the Black community: NAACP presence, Black Church membership rate, years in the Union, Black radio ownership rate at the household level, the share of Black WWI and Civil War veterans in the household, and a measure of “imported discrimination” through migration. When controlling for the veteran share, we include also the share of Black men in each county eligible to enlist in WWII who are living in a household with a Black veteran.³² Reassuringly, in all cases, the coefficient of interest remains in line with the baseline.

Then, since discrimination is measured with noise, we re-estimate the baseline where we measure discrimination as a dummy variable that equals one if it is above the sample median and zero otherwise. We present results in Figure 12, reporting the estimates in tabular form in Online Appendix Table A.10. The second dot from the top shows that the triple interaction coefficient is -11.0 and statistically significant at the 1% level. This implies that, after Pearl Harbor, the enlistment rate of Black men from counties with above sample median discrimination was lower than that of Black men from counties with below sample median discrimination by approximately 11 per 100,000 men. The sample mean of Black enlistment is 8.819 per 100,000 in the eight weeks after Pearl Harbor. Thus, the effect of discrimination is large. In the remaining two dots, we verify that results are robust to taking the log and the hyperbolic sine transformation of the volunteer rate.³³

As an additional robustness exercise, in Online Appendix Figure A.5, we drop each of the 11 former Confederate southern state individually and all of them together. The results are similar to the baseline estimate (the first dot from the left).

We also perform several exercises to validate the index of discrimination. First, to check that it captures variation that is relevant for discrimination, we compare it to two other well-known measures. The first one is the 1948 presidential vote share for Strom Thurmond, a Dixiecrat candidate who opposed efforts to end segregation. The second one is a summary measure of racial inequality in school quality as of

³⁰Data on the nearest refugee camp and 48ers settlements come from Ramos-Toro (2021) and Dippel and Heblich (2021), respectively.

³¹We collected the list of the 178 Black newspapers that were active in 1941 based on the reported open and closure dates, and another 367 additional Black newspapers for which we could not verify the open-closure dates. For each paper, we geolocated the paper headquarter and created a dummy variable that equals one if a county had at least one Black newspaper headquartered there.

³²WWI veteran is reported in the 1930 (and not in the 1940) Census. The share of Black WWI veterans is computed relative to the (Black) eligible population. We follow Mazumder (2019) and Campante and Yanagizawa-Drott (2015), and use age in 1930 to predict whether a man is eligible to serve in WWI. Similar to Mazumder (2019), we calculate age in 1917 for each Black man in the 1930 U.S. Census and compute the number of Black men eligible to serve in WWI (ages 18-45) in 1917. In column (6) (resp., column 7) of Online Appendix Table A.9, Panel B, we control for the number of Black WWI (resp., Civil War) veterans normalized by the number of Black men in the county who would have been eligible to serve in WWI (resp., the Civil War) based on their age, as well as the share of Black men in each county eligible to enlist in WWII who are living in a household with a Black WWI (resp., Civil War) veteran. To calculate the measure of imported discrimination we proceed as follows. For each county, we calculate the number of Black migrants arrived between 1935 and 1940 and multiply this by discrimination in the county of origin. We then scale this measure by the 1940 (receiving) own county Black population to account for the fact that the same number of migrants will have different effects depending on the size of the destination county.

³³When we take the log, we add 0.01 to maximize the number of observations.

1940 in the spirit of Carruthers and Wanamaker (2017). These measures are not used to construct the principal component measure because they are not available for the entire U.S.³⁴ Our discrimination measure is strongly and positively associated with these two measures (see Online Appendix Figure A.6).³⁵ Second, we verify that each variable used to construct the principal component has a similarly signed correlation with enlistment. We estimate the baseline equation with each individual variable instead of the principal component measure. The coefficients all have the same sign, though precision and magnitudes vary (see Figure 13 and Online Appendix Table A.11, Panel A). Furthermore, we demonstrate that the results are similar if we individually omit any of the variables used to construct the index of discrimination (See Figure 13 and Online Appendix Table A.11, Panel B).³⁶ Third, we verify that the results are robust to including additional historical variables when constructing the principal component.³⁷

Finally, in Online Appendix Table A.13, we consider the possibility of spatially correlated errors: Conley adjustment with spatial cutoffs of 100, 200, and 300 km; clustered at the commuting zone; spatial HAC errors using 2 lags, 7 lags and 14 lags. To correct for heteroskedasticity and serial correlation in the error term, we use the Newey–West estimator and define the number of lags following Greene (2012). In particular, we consider the integer approximate of $T^{(1/4)}$, where T is the total number of weeks. The results are unchanged when using different values for the number of lags.

5.4 Heterogeneous Effects

In this section, we examine what factors exacerbate or moderate the discouraging effects of discrimination on Black enlistment after Pearl Harbor. Informed by the historical literature, we consider three main variables: the presence of NAACP chapters, membership in Black churches, and the number of years spent in the Union. In column (1) of Table 4, we split the sample in counties without (Panel A) and with (Panel C) at least one NAACP chapter. In columns (2) and (3), we split the sample in counties with 1926 membership rate in Black churches and the number of years spent in the Union below (Panel B) and above (Panel D) the median.³⁸ The NAACP typically encouraged Black enlistment, while Black churches were more ambivalent. The number of years the state of residence has been part of the Union can affect the strength of

³⁴The Thurmond vote share is available only for a subset of counties in our sample. Black and white school quality is only available for the following states: Alabama, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas.

³⁵Online Appendix Figure A.6 plots the relationship between the index of discrimination (on the x-axis) and, respectively, Thurmond vote share (left panel) and school inequality (right panel), after demeaning by state fixed effects. The correlation in both figures is positive and statistically significant at the 1% level.

³⁶These results also alleviate the concern that variables such as support for the Democrats is more strongly associated with racism in the South than in the North.

³⁷These are the number of enslaved individuals divided by county population in 1860; the racial gap in wages and employment rates in 1940; the share of land cultivated in cotton and in sugarcane in 1940; and, the racial gap in mortality rates in 1940 (see Figure 14 and Appendix Table A.12). Data on the number of enslaved individuals are taken from Haines et al. (2010). Data on the number of deaths by county and race in 1940, which are not available for the full sample, are obtained from Manson et al. (2023). To derive the mortality rate, we scale the number of deaths by the 1940 county-race population. The share of land in cotton and sugarcane are taken from the 1940 Census of Agriculture. These were the crops most heavily associated with slavery and, after 1865, discriminatory behavior against African Americans (Fogel and Engerman, 1977).

³⁸Data on the local presence of NAACP chapters are from Gregory and Estrada (2019). We measure NAACP presence as an indicator variable equal to one if a county had at least one NAACP chapter between 1919 and 1940. Membership in Black churches is the number of members of Black churches reported in the 1926 Census of Religious Bodies, divided by 1930 Black population. We use the Census of Religious Bodies of 1926 instead of that of 1936, because in 1936 the number of Black churches was likely under-counted due to financial constraints (Finke and Scheitle, 2005; Gruber and Hungerman, 2007).

the national identities of its residents because they are more likely to have attended schools or social and community activities that emphasize the national identity. The estimates suggest that the discrimination effect was larger in counties with an NAACP chapter and more Black church members. They also indicate that the effects of discrimination was smaller in states that spent more years in the Union. This is consistent with the historical duration of the collective or individual national identity moderating the discouragement effects from discrimination. However, the difference in the estimated coefficients, reported in Panel E, is statistically significant at conventional levels only in column (3).

6 Conclusion

The results in this study provide novel empirical support for theories of nation building by showing that when a nation is under threat, political exclusion and discrimination can reduce state capacity during wartime. The Pearl Harbor attack triggered a surge in volunteer enlistment. However, the response from Black men, who had been subjected to generations of political exclusion and racial discrimination, was moderate relative to white men.

It is beyond the scope of our study to be conclusive about exactly why discrimination undermines an individual's support for the government. Deepening our understanding of the mechanisms is an important avenue for future research. More generally, the dynamic relationship between nation building and discrimination is complex and multifaceted, and an exciting subject to study. The recent empirical work on the political economy of discrimination and assimilation (that was discussed in the Introduction) and our results together illustrate important trade-offs for the ruling elite. While discrimination and exclusion may lower the cost of implementing the policies preferred by the elite, breaking the social contract can weaken the state by eroding support from the excluded groups at times of war.

By mid 1942, U.S. policymakers had become concerned by the low Black volunteer rates after Pearl Harbor and engaged in a propaganda campaign to recruit Black men. By the end of that year, Black volunteers rates exceeded white volunteer rates. In 1948, Truman desegregated the military, almost twenty years before the 1965 Voting Rights Act.

In total, more than one million Black Americans served in the U.S. military during WWII and 600,000 served during the Korean War (1950-53). That the military was desegregated before the nation as a whole and the recent research findings that exposure to Black soldiers reduced discriminatory sentiments from white soldiers suggest that Black military participation may have helped to ease the path to Civil Rights.³⁹ At the same time, military experience may have emboldened Black men to take stronger actions to fight for Civil Rights, and white apprehension of such activism may have hardened racially motivated repression and violence.⁴⁰ Understanding the effect of Black military service on the Civil Rights movements in the

³⁹Indacochea (2019) documents that inter-racial contact through military service in the Korean War was associated with more favorable attitudes of white men toward Black men. Schindler and Westcott (2021) finds a similar pattern for exposure to Black American soldiers during WWII in the U.K.

⁴⁰Many Black soldiers observed better treatment of Black people abroad while they continued to face racial discrimination at home, even for important veterans benefits such as the G.I. Bill (Turner and Bound, 2003). Military service may have also prepared Black and white men for armed violence.

subsequent decades is an interesting topic for future research.

7 Data Availability Statement

The codes and the data underlying this research are available on the Zenodo website at <https://doi.org/10.5281/zenodo.15108721>.

References

- Acemoglu, Daron and James A Robinson**, “Why did the West extend the franchise? Democracy, inequality, and growth in historical perspective,” *The Quarterly Journal of Economics*, 2000, 115 (4), 1167–1199.
- , **David H Autor, and David Lyle**, “Women, War, and Wages: The Effect of Female Labor Supply on The Wage Structure at Midcentury,” *Journal of political Economy*, 2004, 112 (3), 497–551.
- Ager, Philipp, Leonardo Bursztyn, Lukas Leucht, and Hans-Joachim Voth**, “Killer Incentives: Rivalry, Performance and Risk-Taking among German Fighter Pilots, 1939–45,” *The Review of Economic Studies*, 2021.
- Aidt, Toke S and Raphaël Franck**, “Democratization under the threat of revolution: Evidence from the Great Reform Act of 1832,” *Econometrica*, 2015, 83 (2), 505–547.
- Albright, Alex, Jeremy A Cook, James J Feigenbaum, Laura Kincaide, Jason Long, and Nathan Nunn**, “After The Burning: The Economic Effects of the 1921 Tulsa Race Massacre,” NBER Working paper 28985, 2021.
- Alesina, Alberto and Eliana La Ferrara**, “Ethnic Diversity and Economic Performance,” *Journal of Economic Literature*, September 2005, 43 (3), 762–800.
- and **Enrico Spolaore**, *The Size of Nations*, Mit Press, 2005.
- , **Bryony Reich, and Alessandro Riboni**, “Nation-building, Nationalism, and Wars,” *Journal of Economic Growth*, 2020, 25 (4), 381–430.
- Althoff, Lukas and Hugo Reichardt**, “Jim Crow and Black economic progress after slavery,” *The Quarterly Journal of Economics*, 2024, p. qjae023.
- Angelucci, Charles, Simone Meraglia, and Nico Voigtländer**, “How merchant towns shaped parliaments: From the Norman Conquest of England to the Great Reform Act,” *American Economic Review*, 2022, 112 (10), 3441–87.
- Bailey, Ronald H**, *The Home Front: USA*, Time-Life Books, Inc., 1977.
- Barlow, William**, *Voice over: The making of Black radio*, Temple University Press, 1999.
- Bazzi, Samuel, Andreas Ferrara, Martin Fiszbein, Thomas Pearson, and Patrick A Testa**, “The Other Great Migration: Southern Whites and the New Right,” *The Quarterly Journal of Economics*, 2023a, 138, 1577–1647.
- , —, —, —, —, and —, “The Confederate Diaspora,” *NBER Working Paper*, 2023b.

- , **Arya Gaduh, Alexander D Rothenberg, and Maisy Wong**, “Unity in diversity? How intergroup contact can foster nation building,” *American Economic Review*, 2019, 109 (11), 3978–4025.
- Becker, Gary S**, *The Economics of Discrimination*, University of Chicago press, 2010.
- Becker, Sascha, Andreas Ferrara, Eric Melander, and Luigi Pascali**, “Wars, Taxation and Representation: Evidence from Six Centuries of German History,” CEPR Discussion Paper 15601, University of Warwick 2019.
- Bénabou, Roland and Jean Tirole**, “Identity, Morals, and Taboos: Beliefs as Assets,” *The Quarterly Journal of Economics*, 2011, 126 (2), 805–855.
- Besley, Timothy and Torsten Persson**, “The Origins of State Capacity: Property Rights, Taxation, and Politics,” *American Economic Review*, September 2009, 99 (4), 1218–44.
- and —, “State Capacity, Conflict, and Development,” *Econometrica*, 2010, 78 (1), 1–34.
- Cagé, Julia, Anna Dagherret, Pauline Grosjean, and Saumitra Jha**, “Heroes and Villains: The Effects of Heroism on Autocratic Values and Nazi Collaboration in France,” *American Economic Review*, July 2023, 113 (7), 1888–1932.
- Campante, Filipe and David Yanagizawa-Drott**, “The Intergenerational Transmission of War,” NBER Working Paper 21371, 2015.
- Caprettini, Bruno and Hans-Joachim Voth**, “New Deal, New Patriots: How 1930s Government Spending Boosted Patriotism During World War II,” *The Quarterly Journal of Economics*, 2023, 138 (1), 465–513.
- Carruthers, Celeste K and Marianne H Wanamaker**, “Separate and Unequal in The Labor Market: Human Capital and The Jim Crow Wage Gap,” *Journal of Labor Economics*, 2017, 35 (3), 655–696.
- Chetty, Raj, Nathaniel Hendren, Maggie R Jones, and Sonya R Porter**, “Race and economic opportunity in the United States: An intergenerational perspective,” *The Quarterly Journal of Economics*, 2020, 135 (2), 711–783.
- Dahis, Ricardo, Emily Nix, and Nancy Qian**, “Choosing Racial Identity in the United States, 1880-1940,” NBER Working Paper, 26465 2019.
- Dalfiume, Richard M**, *Desegregation of the US Armed Forces: Fighting on Two Fronts, 1939-1953*, Columbia: University of Missouri Press, 1969.
- Davis, John A**, “Special Groups: Special Monograph No. 10. By the Selective Service System. (Washington: Government Printing Office. 1953. Vol. I, Text. Vol. 2, Appendices A–G. Pp. XV, 212; viii, 217.),” *American Political Science Review*, 1955, 49 (1), 242–242.
- Depetris-Chauvin, Emilio, Ruben Durante, and Filipe Campante**, “Building Nations through Shared Experiences: Evidence from African Football,” *American Economic Review*, May 2020, 110 (5), 1572–1602.
- Derenoncourt, Ellora, Chi Hyun Kim, Moritz Kuhn, and Moritz Schularick**, “Wealth of Two Nations: The U.S. Racial Wealth Gap, 1860-2020,” *The Quarterly Journal of Economics*, 2024, 139 (2), 693–750.
- Dippel, Christian and Stephan Heblich**, “Leadership in Social Movements: Evidence from the "Forty-Fighters" in the Civil War,” *American Economic Review*, February 2021, 111 (2), 472–505.

- Ferrara, Andreas**, “World War II and Black Economic Progress,” *Journal of labor economics*, 2022, 40 (4), 1053–1091.
- Finke, Roger and Christopher P Scheitle**, “Accounting for the uncounted: Computing correctives for the 2000 RCMS data,” *Review of Religious Research*, 2005, pp. 5–22.
- Flynn, George Q**, “Selective Service and American Blacks During World War II,” *The Journal of Negro History*, 1984, 69 (1), 14–25.
- , *The draft, 1940-1973* Modern war studies, Lawrence, Kan: University Press of Kansas, 1993.
- Fogel, Robert W and Stanley L Engerman**, “Explaining the relative efficiency of slave agriculture in the antebellum south,” *The American Economic Review*, 1977, 67 (3), 275–296.
- Fouka, Vasiliki**, “Backlash: The Unintended Effects of Language Prohibition in U.S. Schools after World War I,” *The Review of Economic Studies*, 05 2020, 87 (1), 204–239.
- , **Soumyajit Mazumder, and Marco Tabellini**, “From Immigrants to Americans: Race and Assimilation during the Great Migration,” *Review of Economic Studies*, 2022, 89 (2), 811–842.
- Gardner, John and William Cohen**, “Demographic Characteristics of the Population of the United States, 1930-1950: County-Level [Computer file]. ICPSR ed,” *Ann Arbor, MI: Inter-university Consortium for Political and Social Research [producer and distributor]*, 1992.
- Geva, Dorit**, *The Father Draft Crisis and World War II*, Cambridge: Cambridge University Press, 2013.
- Goldin, Claudia and Claudia Olivetti**, “Shocking labor supply: A reassessment of the role of World War II on women’s labor supply,” *American Economic Review*, 2013, 103 (3), 257–62.
- Greene, William H**, “Econometric analysis,” *Journal of Boston: Pearson Education*, 2012, pp. 803–806.
- Gregory, James N and Josue Estrada**, “NAACP History and Geography. Mapping American Social Movement,” 2019. https://depts.washington.edu/moves/NAACP_map-early.shtml.
- Gruber, Jonathan and Daniel M Hungerman**, “Faith-based charity and crowd-out during the great depression,” *Journal of Public Economics*, 2007, 91 (5-6), 1043–1069.
- Haines, Michael R., Inter university Consortium for Political, and Social Research**, “Historical, Demographic, Economic, and Social Data: The United States, 1790-2002,” *Ann Arbor, MI: Inter-university Consortium for Political and Social Research*, 2010.
- Harper, Marilyn M, John W Jeffries, William M Tuttle Jr, Nelson Lichtenstein, and Harvard Sitkoff**, “World War II and the American home front,” 2007.
- Hobbes, Thomas**, *LEVIATHAN, or the matter, forme and power of a commonwealth ecclesiasticall and civil.*, Broadview Press, 1651.
- Hornbeck, Richard and Suresh Naidu**, “When the Levee Breaks: Black Migration and Economic Development in the American South,” *American Economic Review*, March 2014, 104 (3), 963–90.
- Indacochea, Daniel**, “A Farewell to Army Segregation: The Effects of Racial Integration During the Korean War,” University of Toronto Ph.D. Dissertation, 2019.

- Jácome, Elisa, Ilyana Kuziemko, and Suresh Naidu**, “Mobility for all: Representative intergenerational mobility estimates over the 20th century,” NBER Working Paper, 29289, National Bureau of Economic Research 2021.
- Jefferson, R.F.**, *Fighting for Hope: African American Troops of the 93rd Infantry Division in World War II and Postwar America* War/Society/Culture, Johns Hopkins University Press, 2008.
- Jha, Saumitra and Steven Wilkinson**, “Does combat experience foster organizational skill? Evidence from ethnic cleansing during the partition of South Asia,” *American Political Science Review*, 2012, 106 (4), 883–907.
- and —, “Revolutionary Contagion,” 2023.
- Jia, Ruixue and Torsten Persson**, “Choosing Ethnicity: The Interplay Between Individual and Social Motives,” *Journal of the European Economic Association*, 06 2020, 19 (2), 1203–1248.
- Kakel, Carroll**, *The American West and the Nazi East: A comparative and interpretive perspective*, Springer, 2011.
- Karnad, Raghu**, *Farthest field: an Indian story of the Second World War*, WW Norton & Company, 2015.
- Keyssar, Alexander**, *The Right to Vote: The Contested History of Democracy in the United States*, Basic Books, 2000.
- Kuhl, Stefan**, *The Nazi connection: Eugenics, American racism, and German national socialism*, Oxford University Press, 2002.
- Lee, Ulysses**, “The Employment of Negro Troops: US Army in World War II: Special Studies. Washington: Office of the Chief of Military History,” *US Army*, 1966, p. 411.
- Levi, Margaret**, *Consent, dissent, and patriotism*, Cambridge University Press, 1997.
- Locke, John**, *An essay concerning human understanding*, P. Nidditch (Oxford: Clarendon, 1975), 1690.
- Logan, Trevon D and John M Parman**, “Segregation and Homeownership in the Early Twentieth Century,” *American Economic Review*, 2017, 107 (5), 410–14.
- Manson, Steven, Jonathan Schroeder, David Van Riper, Katherine Knowles, Tracy Kugler, Finn Roberts, and Steven Ruggles**, “IPUMS National Historical Geographic Information System: Version 18.0 [dataset],” 2023. Minneapolis, MN: IPUMS. Available at <http://doi.org/10.18128/D050.V18.0>.
- Marchais, Gauthier, Christian M Mugaruka, Raúl Sanchez de la Sierra, and David Qihang Wu**, “The Forging of a Rebel,” Technical Report, National Bureau of Economic Research 2021.
- Masera, Federico, Michele Rosenberg, and Sarah Walker**, “The Civil War and Racial Hate in the US South,” *UNSW Business School Research Paper Forthcoming*, 2024.
- Mazumder, Soumyajit**, “Becoming White: How Military Service Turned Immigrants into Americans,” Working Paper, 2019.
- McPherson, James M**, *For cause and comrades: Why men fought in the Civil War*, Oxford University Press, 1997.

- Osur, Alan M and Air Force**, *Separate and unequal : race relations in the AAF during World War II*, Air Force History And Museums Program, 2000.
- Ramos-Toro, Diego**, “Self-Emancipation and Progressive Politics: The Legacy of Civil War Refugee Camps,” Working Paper, 2021.
- Reed, Lawrence N**, *Rock is Rhythm and Blues*, East Lansing, Michigan: The Michigan State University Press, 1974.
- Roth, Jonathan**, “Pretest with caution: Event-study estimates after testing for parallel trends,” *American Economic Review: Insights*, 2022, 4 (3), 305–322.
- Scheve, Kenneth and David Stasavage**, *Taxing the rich: A history of fiscal fairness in the United States and Europe*, Princeton University Press, 2016.
- Schindler, David and Mark Westcott**, “Shocking Racial Attitudes: Black GIs in Europe,” *Review of Economic Studies*, 2021, 88, 489–520.
- Shertzer, Allison and Randall P Walsh**, “Racial Sorting and The Emergence of Segregation in American Cities,” *Review of Economics and Statistics*, 2019, 101 (3), 415–427.
- Spence, Michael**, “Job Market Signaling,” *The Quarterly Journal of Economics*, 1973, 87 (3), 355–374.
- Spencer, Robyn**, “Contested terrain: The Mississippi flood of 1927 and the struggle to control black labor,” *The Journal of Negro History*, 1994, 79 (2), 170–181.
- Ticchi, Davide and Andrea Vindigni**, “War and endogenous democracy,” IZA Discussion Paper No. 3397, IZA 2008.
- Turner, Sarah and John Bound**, “Closing the Gap or Widening the Divide: The Effects of the G.I. Bill and World War II on the Educational Outcomes of Black Americans,” *The Journal of Economic History*, 2003, 63 (1), 145–177.
- Weigel, Jonathan L**, “The Participation Dividend of Taxation: How Citizens in Congo Engage More With The State When It Tries to Tax Them,” *The Quarterly Journal of Economics*, 2020, 135 (4), 1849–1903.
- Williams, Chad L**, *Torchbearers of democracy: African American soldiers in the World War I era*, Univ of North Carolina Press, 2010.
- Woodruff, Nan Elizabeth**, “Mississippi Delta planters and debates over mechanization, labor, and civil rights in the 1940s,” *The Journal of Southern History*, 1994, 60 (2), 263–284.
- Young, Alwyn**, “Channeling fisher: Randomization tests and the statistical insignificance of seemingly significant experimental results,” *The Quarterly Journal of Economics*, 2019, 134 (2), 557–598.

Table 1: The Correlates of Discrimination

	Dependent Variable Discrimination				
	(1)	(2)	(3)	(4)	(5)
	Mean	Std. Dev.	Standardized Coefficient	Obs.	R-squared
A. All					
Log Population	11.99	1.712	0.259***	2,306	0.788
Urban Share	0.599	0.323	0.247***	2,306	0.787
Black Population Share	0.099	0.144	0.466***	2,306	0.825
White Population Share	0.897	0.143	-0.447***	2,306	0.821
German (ancestry) Population Share	1.723	1.725	0.151***	2,306	0.758
Italian (ancestry) Population Share	3.205	4.139	0.149***	2,306	0.755
Japanese (ancestry) Population Share	0.094	0.352	0.010	2,306	0.750
Distance from Pearl Harbor (1,000 km)	6.940	1.111	0.434***	2,306	0.752
B. Black					
Log Population	9.966	1.427	0.247***	2,303	0.808
Age	27.50	2.757	0.094***	2,306	0.767
Share Employed	0.807	0.101	0.045***	2,306	0.765
Log Occupational Income Score	2.833	0.172	0.030**	2,306	0.764
Share Employed in Manufacturing	0.052	0.035	0	2,306	0.764
Share Employed in Farming	0.127	0.112	0.040***	2,306	0.765
C. White					
Log Population	11.95	1.734	0.270***	2,306	0.751
Age	31.42	2.628	0.247***	2,306	0.734
Share Employed	0.817	0.048	-0.020	2,306	0.710
Log Occupational Income Score	3.197	0.140	0.300***	2,306	0.772
Share Employed in Manufacturing	0.098	0.053	0.168***	2,306	0.725
Share Employed in Farming	0.057	0.061	-0.250***	2,306	0.750

Notes: Each row is one regression. Observations are at the county level. All regressions control for state fixed effects, and are weighted by the 1940 population of eligible men in each county and race. Significance levels: ***p<0.01, ** p<0.05, * p<0.1.

Table 2: The Effect of Discrimination on Black Volunteer Enlistment

	Dependent Variable: # Volunteers per 100,000 Eligible Men			
	(1)	(2)	(3)	(4) Baseline
Discrimination x Black x Post	-2.158 (0.593)	-2.117 (0.599)	-2.130 (0.599)	-2.803 (0.547)
Discrimination x Black	-0.308 (0.406)	-1.440 (0.556)	-1.459 (0.557)	
Black x Post	-14.326 (1.087)	-14.520 (1.111)	-14.639 (1.105)	
Black	-11.706 (0.647)	-10.563 (0.783)	-10.525 (0.787)	
Controls				
State FE	Y	N	N	N
County FE	N	Y	Y	N
Week FE	N	N	Y	N
County-Week FE	N	N	N	Y
Race-Week FE	N	N	N	Y
Race-County FE	N	N	N	Y
Observations	71,992	71,992	71,992	71,992
Adjusted R-sq	0.223	0.307	0.403	0.579
Mean Y	30.224	30.224	30.224	30.224
Std. Dev. Y	38.525	38.525	38.525	38.525

Notes: Observations are at the race, county and week level. All regressions include all lower order interaction terms and are weighted by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Table 3: The Effect of Discrimination on Black Volunteer Enlistment – Controlling for Draft Enlistment and Capacity Constraints

	Dependent Variable: # Volunteers per 100,000 Eligible Men						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Baseline	Dep. Variable: Draft Rate	Race-County- Week Draft Rate	Lagged Race- County-Week Draft Rate	Baseline Draft Rate x Week FE	1940 Black/White Share of Officers x Week FE	Distance to the nearest military base x Week FE
Discrimination x Black x Post	-2.803 (0.547) [-0.042]	3.136 (5.109) [0.010]	-2.804 (0.547) [-0.042]	-2.687 (0.547) [-0.040]	-2.736 (0.542) [-0.041]	-2.897 (0.530) [-0.043]	-2.806 (0.558) [-0.042]
Observations	71,992	71,992	71,992	71,992	71,992	71,992	71,992
Adjusted R-sq	0.579	0.603	0.579	0.579	0.579	0.579	0.579
Mean Y	30.224	80.214	30.224	30.224	30.224	30.224	30.224
Std. Dev. Y	38.525	181.205	38.525	38.525	38.525	38.525	38.525

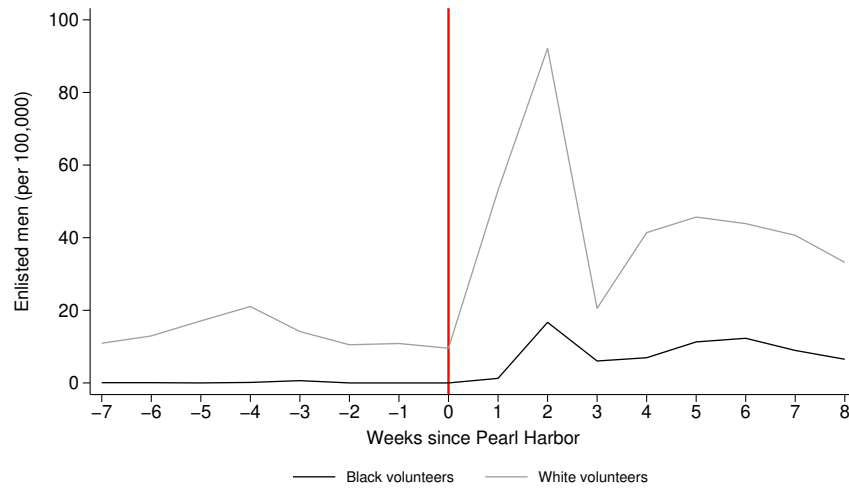
Notes: Observations are at the race, county and week level. Column (1) reports the baseline specification. From column (2) onwards, we replicate the baseline specification controlling for each county-race-week control reported at the top of the column. All regressions include county-week fixed effects, race-week fixed effects, and county-race fixed effects. Regressions include all lower order interaction terms and are weighted by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Table 4: The Effect of Discrimination on Black Volunteer Enlistment – Heterogeneous Effects

Dependent Variable: # Volunteers per 100,000 Eligible Men			
	(1)	(2)	(3)
	X= NAACP Chapter in 1940	X=Black Churches in 1926	X=Years in the Union
	Panel A. X = 0	Panel B. X ≤ Median Value	
Discrimination x Black x Post [1]	-2.314 (0.686)	-1.863 (1.118)	-4.333 (0.801)
Observations	65,452	34,768	36,596
Adjusted R-sq	0.519	0.514	0.554
Mean Y	31.02	32.22	34.10
Std. Dev. Y	45.15	40.31	45.30
	Panel C. X = 1	Panel D. X > Median Value	
Discrimination x Black x Post [2]	-4.324 (1.828)	-3.075 (0.538)	-1.968 (0.667)
Observations	6,540	36,836	35,396
Adjusted R-sq	0.795	0.661	0.605
Mean Y	29.16	27.96	27.54
Std. Dev. Y	27.24	36.18	32.76
Panel E. Difference between Coefficients			
p-value: [1] – [2]	0.8149	0.3561	0.0214

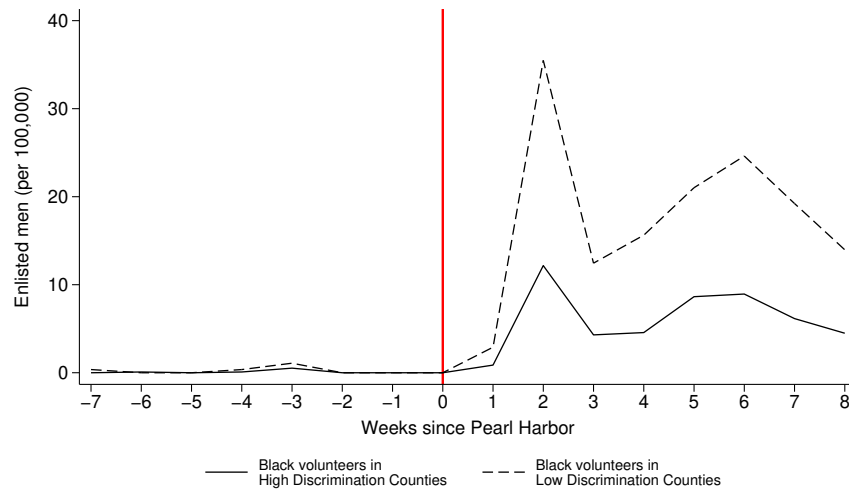
Notes: Observations are at the race, county and week level. Sample restrictions are stated in the column headings (X is the variable with which the sample is cut). All regressions include county-week fixed effects, race-week fixed effects, and county-race fixed effects. The regressions include all lower order interaction terms and are weighted by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Figure 1: Volunteer Enlistment – Black, White



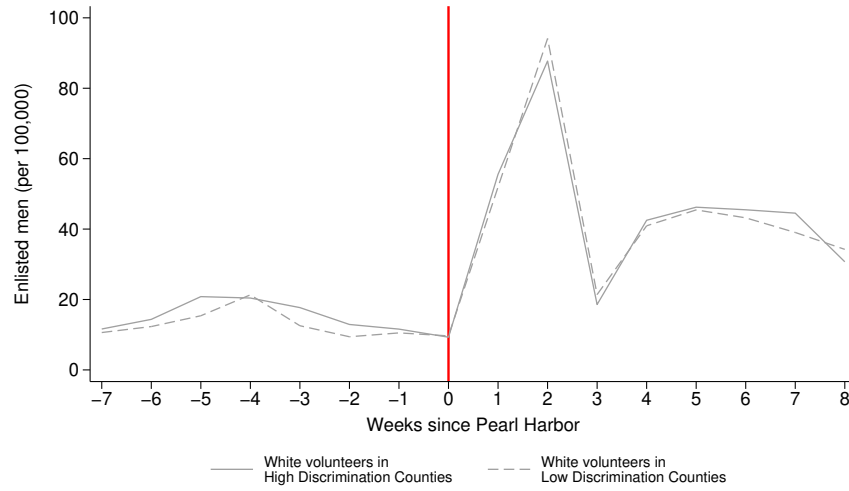
Notes: The figure shows the number of Black and white volunteers (per 100,000 eligible men) in the 8 weeks pre- and post-attack on Pearl Harbor. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 2: Volunteer Enlistment – Black, High and Low Discrimination



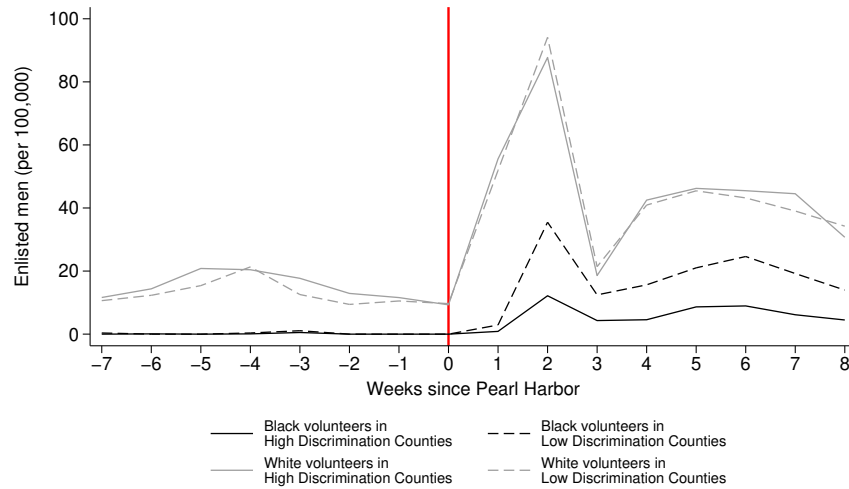
Notes: The figure shows the number of Black volunteers (per 100,000 eligible men) from high and low discrimination counties, in the 8 weeks pre- and post-attack on Pearl Harbor. Low (High) discrimination counties are those for which discrimination is below (above) the sample median. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 3: Volunteer Enlistment – White, High and Low Discrimination



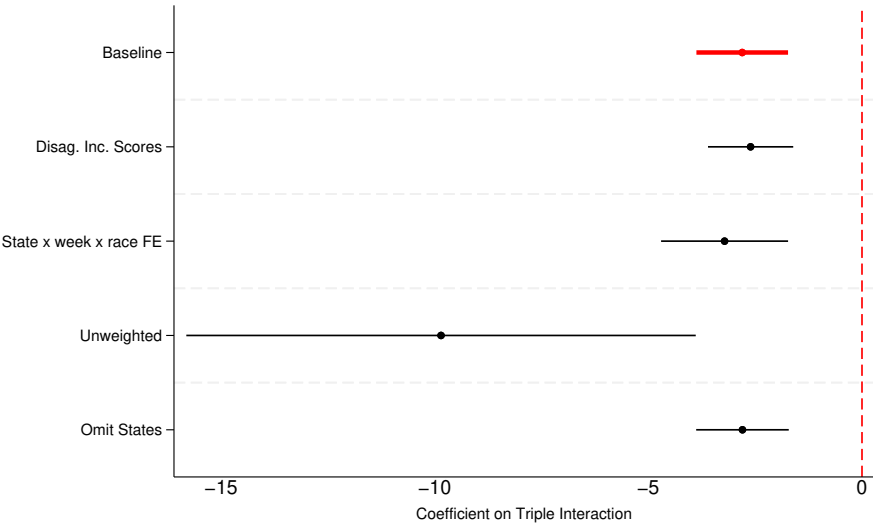
Notes: The figure shows the number of white volunteers (per 100,000 eligible men) from high and low discrimination counties, in the 8 weeks pre- and post-attack on Pearl Harbor. Low (High) discrimination counties are those for which the discrimination is below (above) the sample median. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 4: Volunteer Enlistment – Black and White, High and Low Discrimination



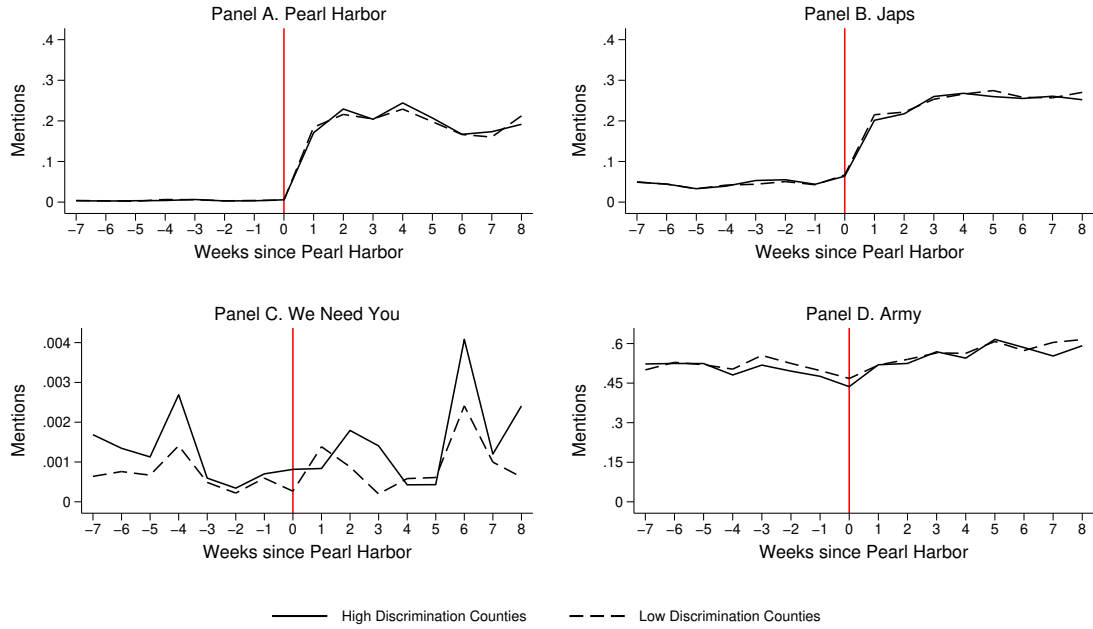
Notes: The figure shows the number of Black and white volunteers (per 100,000 eligible men) from high and low discrimination counties, in the 8 weeks pre- and post-attack on Pearl Harbor. Low (High) discrimination counties are those for which the discrimination is below (above) the sample median. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 5: Additional Robustness Checks



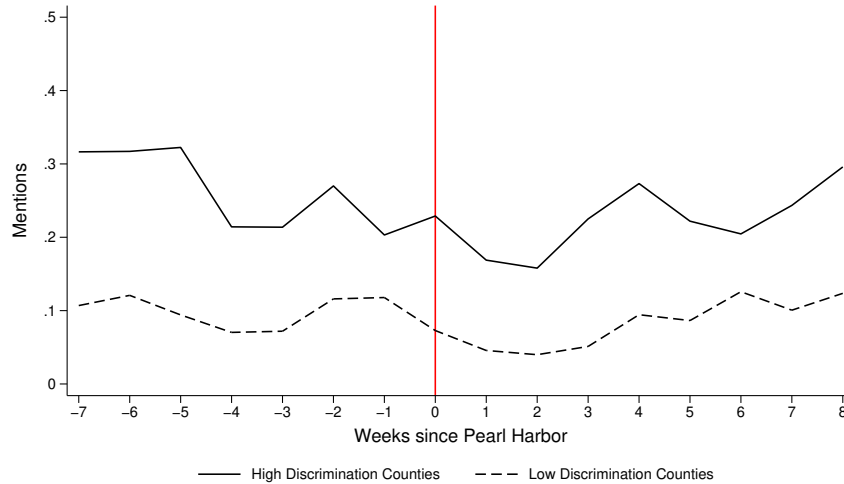
Notes: The figure plots coefficients (with corresponding 95% confidence interval) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) by the income scores with race-specific 1950 income scores from Jácome et al. (2021); interactions between race dummies, week dummies, and state dummies; without weighing; and dropping the states whose counties report missing information. See Online Appendix Table A.5.

Figure 6: Share of News Coverage About the War in Local Newspapers



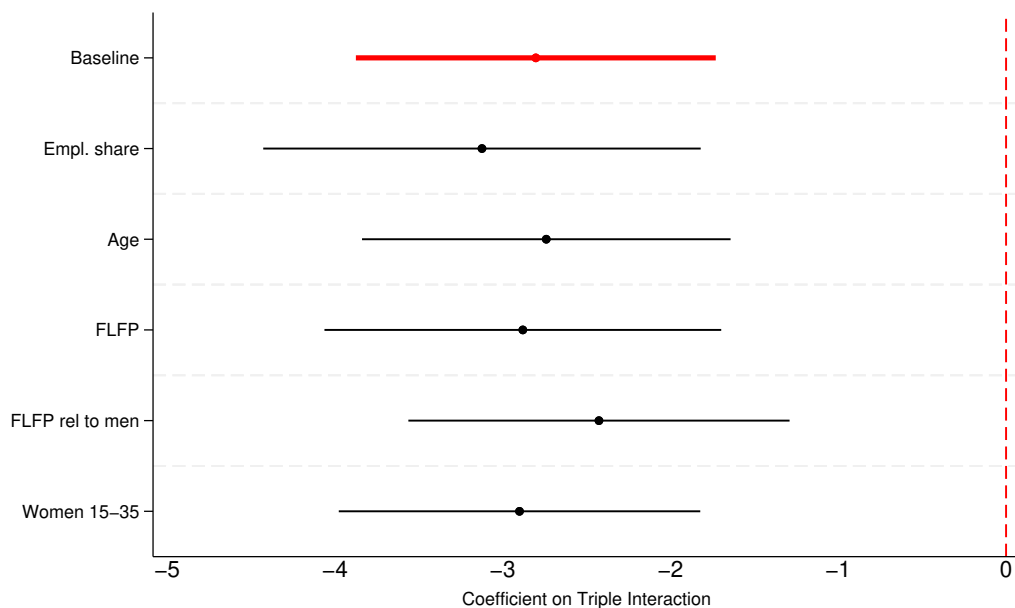
Notes: The figure shows the share of articles mentioning terms: "Pearl Harbor", "Japs", "We Need You", and "Army", respectively, in high (solid line) and low (dashed line) discrimination counties, in the 8 weeks pre- and post-attack on Pearl Harbor. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 7: Racist Terms + “Negro”



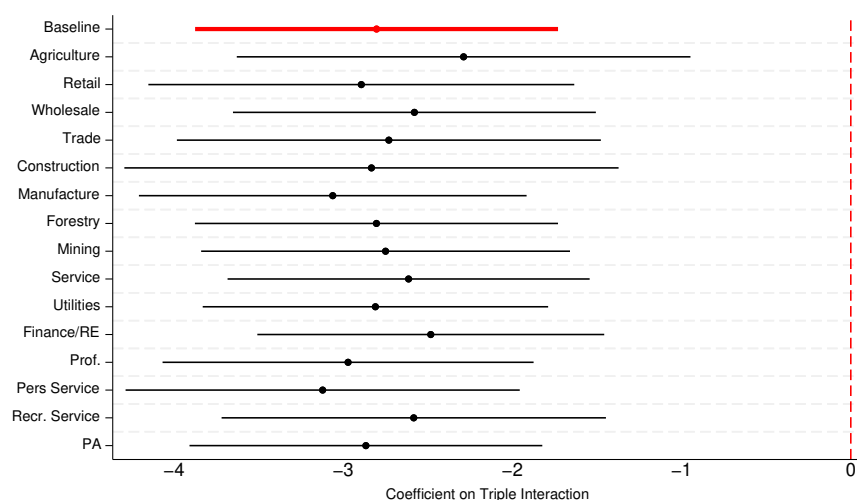
Notes: The figure shows the share of newspapers articles that simultaneously mention the word Negro and racially disparaging terms in high and low discrimination counties, in the 8 weeks pre- and post-attack on Pearl Harbor. Low (High) discrimination counties are those for which discrimination is below (above) the sample median. Week 0 is defined as the week ending on Sunday December 7, 1941, and Week 1 is defined as the week starting on Monday December 8, 1941.

Figure 8: The Effect of Discrimination on Black Volunteer Enlistment – Controlling for Outside Economic Conditions



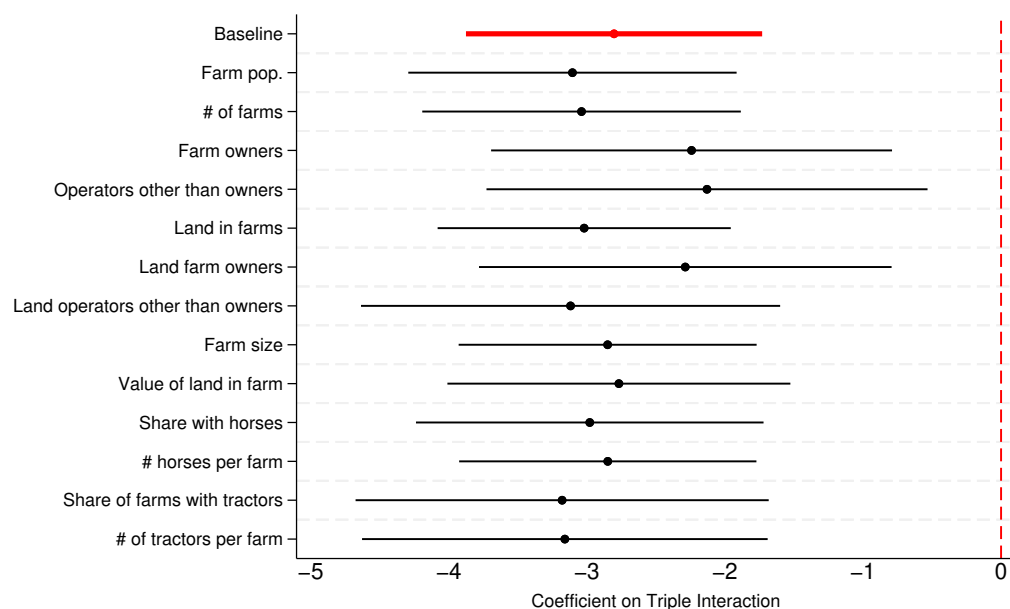
Notes: The figure plots coefficients (with corresponding 95% confidence intervals) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) with the county-race controls indicated in each row, interacted with week fixed-effects. See Online Appendix Table A.6.

Figure 9: The Effect of Discrimination on Black Volunteer Enlistment – Controlling for County-Race-Specific Employment Shares in Each Industry



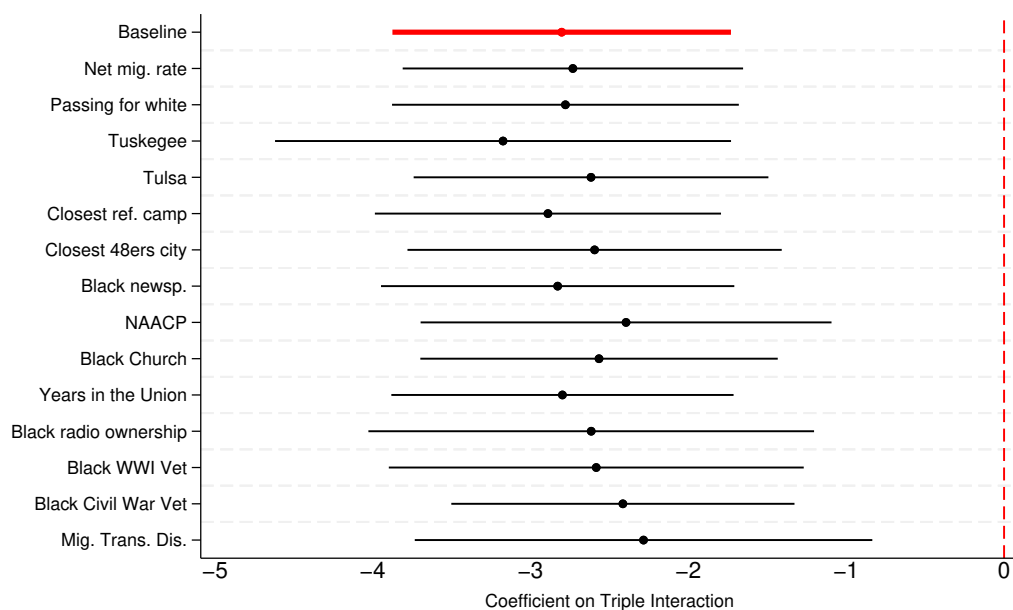
Notes: The figure plots coefficients (with corresponding 95% confidence intervals) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) with the county-race controls indicated in each row, interacted with week fixed-effects. See Online Appendix Table A.7.

Figure 10: The Effect of Discrimination on Black Volunteer Enlistment – Controlling for Farm Ownership



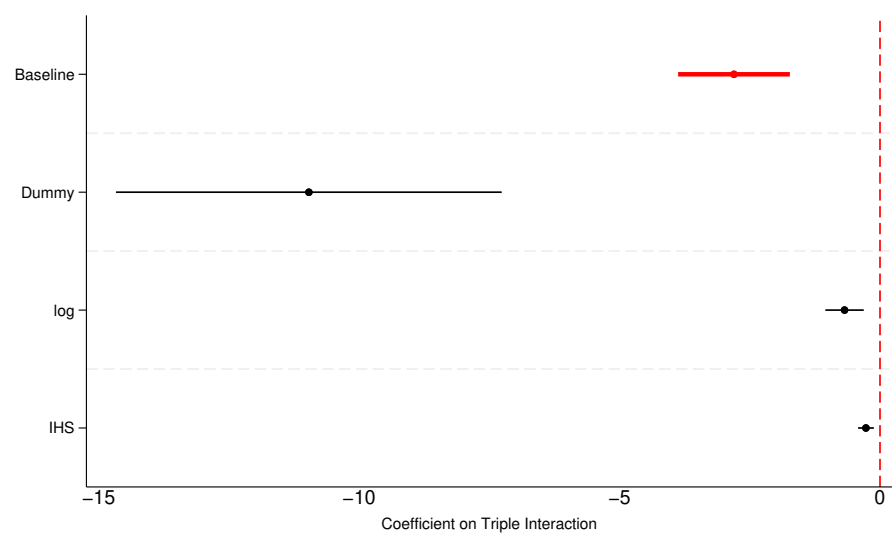
Notes: The figure plots coefficients (with corresponding 95% confidence intervals) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) with the county-race controls indicated in each row, interacted with week fixed-effects. See Online Appendix Table A.8.

Figure 11: The Effect of Discrimination on Black Volunteer Enlistment – Additional Controls



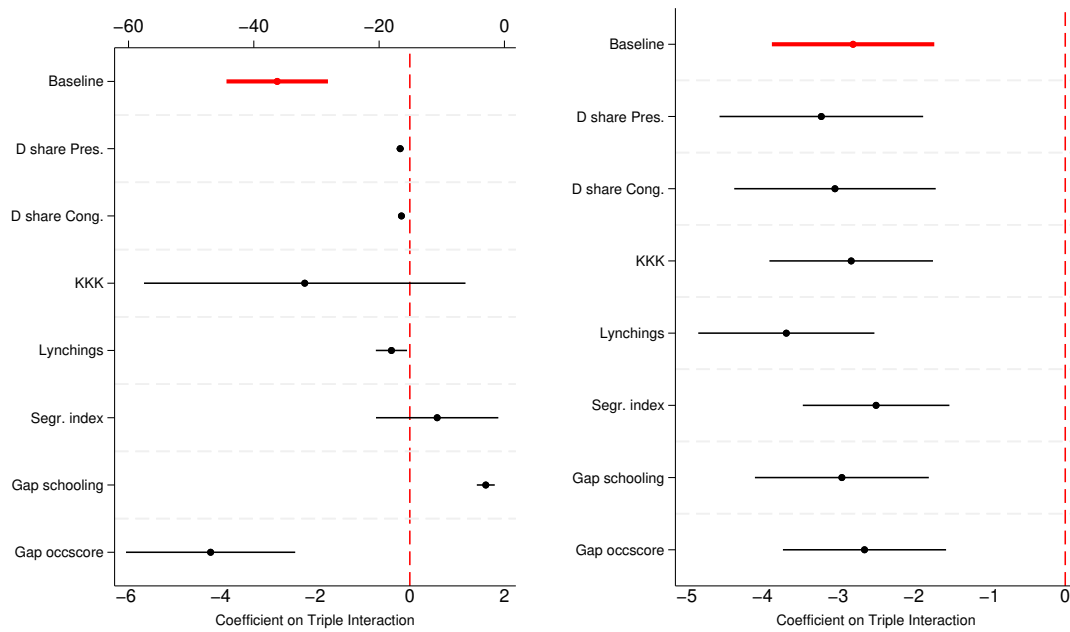
Notes: The figure plots coefficients (with corresponding 95% confidence intervals) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) with the county-race (net migration rate) or county-level (interacted with black dummy) controls indicated in each row, interacted with week fixed-effects. See Online Appendix Table A.9.

Figure 12: The Effect of Discrimination on Black Volunteer Enlistment – Alternative Specifications



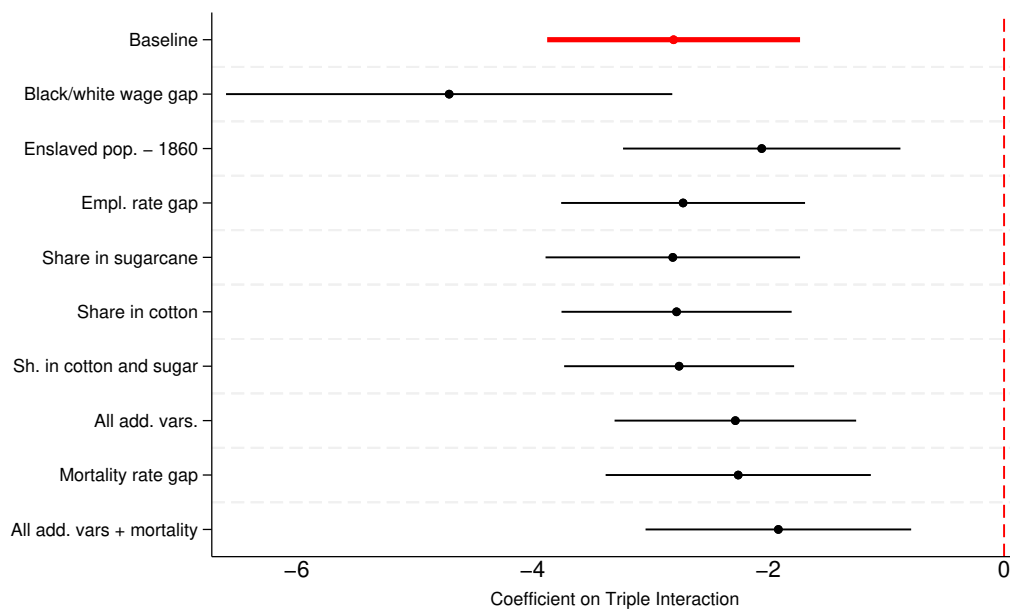
Notes: The figure plots coefficients (with corresponding 95% confidence interval) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) by substituting the discrimination measure with a dummy for being in a county with an above-median level of discrimination, taking the log of the measure, or the inverse-hyperbolic sine transformation. See Online Appendix Table A.10.

Figure 13: The Effect of Discrimination on Volunteer Enlistment – Individual Components of Discrimination



Notes: The figure plots coefficients (with corresponding 95% confidence interval) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) by replacing the discrimination index with one of its components specified in each row (left panel), and by dropping, one by one, each component mentioned in each row. In the left panel, due to their size, coefficients on Segregation Index and Gap in log(occscore) refer to the secondary axis at the top of the figure; the red line refers to the primary axis (bottom one). See Online Appendix Table A.11.

Figure 14: The Effect of Discrimination on Black Volunteer Enlistment – Alternative Discrimination Measures



Notes: The figure plots coefficients (with corresponding 95% confidence interval) on the interaction between Discrimination, Black, and Post, augmenting the baseline (in red) by replacing the baseline discrimination index with the principal component of all of the variables in the baseline discrimination index and the variable in the row. See Online Appendix Table A.12.