State Capacity and Discrimination: WWII U.S. Army Enlistment

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Abstract

This paper investigates the effect of discrimination on volunteer military enlistment rates, which we interpret as a component of state capacity. We use weekly enlistment data and a triple difference strategy to document that WWII Black enlistment rates immediately after the Pearl Harbor attack were negatively associated with the intensity of historical racial discrimination across U.S. counties. Instead, white enlistment rates were not associated with discrimination. The triple difference estimates are robust to controlling for county-week, race-week, and county-race fixed effects, as well as a large number of race-county-time-specific controls. The data show similar negative relationships between the degree of discrimination and enlistment rates for Japanese Americans.

Keywords: State Capacity, Political Economy, Institutions, Identity
JEL: D72, J15, N92, P16

1   Introduction

A new and important branch of the political economy literature argues that state capacity is central for economic growth (e.g., Besley and Persson, 2009, 2010). These studies point out that state capacity is a multi-dimensional object that goes beyond the narrower definition of the ability to raise taxes originally provided by Tilly (1993). These other components of state capacity have received relatively little attention from the economics literature. One example is military enlistment, which affects the ability of a country to fight during wars. Political scientists have argued that state capacity depends on the ability of the state to motivate its citizens to enlist, which includes both voluntary and conscripted service (Levi et al., 1997).

This study aims to provide rigorous empirical evidence on the determinants for the motivation to enlist. The main outcome of interest is volunteer enlistment, which is a better measure of motivation than conscription. We focus on racial discrimination as a determinant. This builds on the notions that state capacity is associated with institutional inclusivity (Besley and Persson, 2009) and that racial tension reduces state capacity (e.g., Alesina et al., 2020b,a; Alesina and Spolaore, 2005).[1] Our empirical analysis tests the hypothesis that the political and social exclusion perpetuated by racial discrimination discouraged Black volunteer enlistment, and thus, reduced U.S. state capacity.

The historical context of Black enlistment at the very beginning of WWII is ideal for our research question about discrimination and state capacity. By the end of WWII, a higher share of Black men had enlisted than white men, and their valor were renowned. However, at the war's outset, participation was intensely controversial within the Black community, when there was little difference between the U.S. government and what was then known about the Axis regimes. Partly in response to this ambivalence, the U.S. government enacted a large campaign to recruit Black soldiers in the second half of 1942.[2] To cleanly identify the discouragement effect of discrimination, we focus on the period before this recruitment campaign. We will compare volunteer enlistment rates in a sixteen-week window around the December 7, 1941 surprise attack by Japan on Pearl Harbor. This attack prompted the United

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[1]Besley and Persson (2009) argues that countries with inclusive institutions tend to invest more in building state capacity in the long run. Our hypothesis that discrimination can reduce state capacity is a related, but distinct, to the earlier theory. See Alesina and Ferrara (2005) for a review.

[2]See Section 2.

States to immediately and fully enter WWII on the side of the Allied Forces.

To measure discrimination, we use a principal components index that combines variables from past studies used to capture formal, informal, political and social discrimination. This index reflects a person's own exposure to discrimination as well as the intergenerationally and horizontally transmitted experiences of his community.

We document several novel patterns in the data. First, Black volunteer enlistment increased immediately after the Pearl Harbor attack. However, the increase was lower in counties with higher levels of discrimination. Second, white volunteer enlistments rates also rose right after the attack, but they varied little across counties with high versus low discrimination. Since white men were not subject to racial discrimination, both patterns are consistent with the hypothesis that discrimination discouraged Black volunteer enlistment. Finally, we document that national volunteer enlistment rates for Black men increased less than for white men in both types of counties. This is consistent with the fact that Blacks suffered severe discrimination everywhere, even in counties with *relatively* low levels of discrimination.

To estimate the causal impact of discrimination on volunteer enlistment, we use a *triple-differences (*DDD) specification. We compare volunteer enlistment rates right before and after Pearl Harbor, across counties with different levels of discrimination, between Black and white men. Conceptually, the DDD compares the second-difference (DD) estimates of the effect of discrimination on enlistment across the races. The second-difference (enlistment in counties with higher discrimination versus counties with lower discrimination, before and after Pearl Harbor) controls for time-invariant differences across counties that would affect enlistment. For example, counties with higher discrimination may be more rural, where transportation to the army recruiter is more costly. The third difference removes confounding influences that are correlated with discrimination and vary over time in a way that affects the two races similarly. For example, manufacturing employment opportunities in war industries may be more prevalent in counties with higher levels of discrimination, and also affect the decision to volunteer by increasing the opportunity cost of enlistment. Only the triple difference is interpreted as plausibly exogenous.

The granularity of the data and the short event window allow sharp identification, and avoid the confounding influences of other factors. Moreover, our preferred specification includes county-week fixed effects, which control for differences across counties over time; race-week fixed effects, which control for differences across races over time;

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and county-race fixed effects, which control for time invariant county-race-specific differences.

We also include county-race-specific characteristics interacted with week fixed effects to control for time varying differences across races that also vary by county, such as education or occupation. For example, one may be concerned that, in high discrimination counties, white men have more access to war-time manufacturing employment than Black men.[3] To address this, we calculate the county share of Black men and of white men employed in manufacturing prior to Pearl Harbor, and control for each variable interacted with week fixed effects. Another important control is race-county-week-specific *draft* enlistment rates. There was resistance from some local Army recruiters (i.e., local boards) to accept Black soldiers (Flynn, 1984). If this occurred more in counties with higher discrimination, then the DDD would capture both the effects of discrimination from Army recruiters (i.e., a demand-side effect) and the effects of discrimination on the motivation of Black men to volunteer (i.e., a supply-side effect). Controlling for county-race-week specific draft enlistment addresses this issue. Draft enlistment was fully under the control of the military and thus captures demand-side effects. We discuss other controls in the text.

The estimated coefficient on the triple interaction of discrimination, the dummy variable for Black and the dummy variable for post-Pearl Harbor on volunteer enlistment rate is negative, large in magnitude and statistically precise. Thus, the descriptive evidence that discrimination discouraged Black men from volunteering after Pearl Harbor is unlikely to be an artifact of omitted variables or spurious correlations. The magnitude of the effect is large. Comparing a county at the 75th percentile of the discrimination index to a county at the 25th percentile, the rise in Black volunteer enlistment during the eight weeks after Pearl Harbor is 95% higher in the latter.

We demonstrate that our results are robust to a large number of additional controls, such as the presence of institutions that may have influenced participation from the Black community (e.g., NAACP chapters and Black churches), distance from Pearl Harbor and Germany, the number of years that the state had been part of the Union (a proxy for the strength of national and political identity), the presence of

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[3]For example, Aizer et al. (2020) and Ferrara (2018) document significant skill upgrading for Black men and a reduction in the racial wage gap. Fishback et al. (2020) document racial differences in access to New Deal work relief.

WWI Black veterans residing in the county (a proxy for the disappointment of not being better treated after fighting in WWI), and the volunteer behavior in counties connected through historical migration networks (a proxy for potential "peer effects" and geographic spillover). These and additional robustness results are described in Section 4.

We also investigate heterogeneous treatment effects. We find that the effects of discrimination are stronger in places further away from Pearl Harbor. This suggests that the effect of discrimination was partly offset by the physical immediacy of danger. Consistent with historical accounts about the disappointment felt by Black WWI veterans when they returned to unrelenting discrimination, we find suggestive evidence that the discouragement effect was larger in counties with more Black household heads who had served in WWI. However, this difference is not statistically significant.

We supplement our main analysis by examining the effects of discrimination and the disenfranchisement of Japanese Americans, who were declared to be enemy citizens after Pearl Harbor and largely barred from military service until early 1943, when they were recruited conditional on their willingness to swear loyalty to the United States. This conditionality gave Japanese American men discretion in whether they were drafted. The months after the attack on Pearl Harbor, Japanese-American civilians on the U.S. mainland were forcibly interred, whereas those living in Hawaii were largely exempted. Thus, we compare the willingness of Japanese Americans to join the U.S. military before and after they were allowed back into service, between the mainland and Hawaii. We find a large increase in enlistment from Hawaii, and no increase from the mainland. This is consistent with discrimination and disenfranchisement discouraging military participation.

We interpret our results as novel and rigorous evidence that discrimination discourages military participation, and in this way, reduces state capacity. We provide a discussion of the possible mechanisms in Section 6. For policy makers, the results provide clear insights: citizens from whom the state expects equal contribution should receive equal treatment from the state. Reducing discrimination strengthens state capacity.

Our study adds to the literature on the determinants of state capacity. The results are consistent with the argument that racial tension reduces state capacity (e.g., Alesina et al., 2020b,a; Alesina and Spolaore, 2005).[4] The results support Besley and

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[4]See Alesina and Ferrara (2005) for a review.

Persson (2009) and Besley and Persson (2010), as well as the theory of military participation by Levi et al. (1997). Our insights also complement several recent empirical papers on state capacity in other contexts. Becker et al. (2019) uses historical German data to document that exposure to conflict increased political participation, which subsequently increased citizen consent for taxation. In the D.R.C., Weigel (2020) finds that an increase in citizens' demand for participation in government as a response to having to pay taxes, while Sánchez De La Sierra (2020) documents how armed bandits perform basic state functions.

Our work also complements recent empirical studies of the determinants of military participation in the United States. Our suggestive findings about the influence of WWI veterans is consistent with Campante and Yanagizawa-Drott (2015), which finds that attitudes toward military enlistment can be transmitted across generations. Fouka (2020) documents that discrimination against German Americans after and during WWI reduced their participation in WWII. Ferrara and Fishback (2020) finds that German Americans moved away from counties with high WWI casualty rates to escape discrimination, leading to a decline in manufacturing in these places. Caprettini and Voth (2020) documents a positive relationship between New Deal spending and enlistment of all men during WWII.

By analyzing the effects of discrimination on military participation, we also complement a recent and growing body of the literature that examines how inter-group contact during wars changes racial attitudes. Schindler and Westcott (2021) finds that the presence of African American soldiers during WWII reduced anti-minority sentiments in the U.K. – an effect that persisted for a long time. Indacochea (2019) documents that white veterans who fought in racially integrated units during the Korean War had lower racial prejudice after the war. Finally, we add to the large literature on discrimination by highlighting state capacity as another social cost.[5]

This paper is organized as follows. Section 2 discusses the historical background. Section 3 describes the data. Section 4 presents the empirical strategy and main results. Section 5 examines Japanese Americans. Section 6 interprets the results. Section 7 concludes.

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[5]See Becker (2010) for a literature overview.

2 Background

2.1 WWII and Pearl Harbor

Prior to the attack on Pearl Harbor, WWII was a war about abstract values such as democracy and Fascism in distant foreign lands. The United States was pushed into the war when the Japanese conducted a surprise military strike against the U.S. naval base at Pearl Harbor in Honolulu, Hawaii, at 7:48am on Sunday morning, December 7, 1941. 2,403 Americans were killed and 1,178 others were wounded. 188 U.S. aircrafts were destroyed together with other physical military capital. The attack happened without a declaration of war and without explicit warning, amidst ongoing peace negotiations. Japan declared war on the United States later that day. The following day, the U.S. formally entered WWII when Congress declared war. The Japanese conducted additional and highly damaging strikes against the U.S. Pacific fleet in the following days, adding to a sense of a nation under attack in the United States. Pearl Harbor was the only major attack on the U.S. territory during WWII.

2.2 Military Enlistment

Our main analysis focuses on the eight weeks right before and right after Pearl Harbor. Procedures for volunteer and draft enlistment were already in place and experienced little change during this short period.

There are several key facts about volunteer enlistment to keep in mind for interpreting our results. First, there was no change in the operations of Army recruitment or eligibility criteria, within the narrow window that we examine (eight weeks before and after Pearl Harbor). The one exception is the expansion of the age range.[6] Second, many local boards, particularly in the South, discriminated against Black individuals. Anecdotal and historical accounts discuss how, during the early period that we study, Black volunteers were turned away (Flynn, 1984, 1993; Ferrara, 2018).

Finally, the criteria for accepting volunteers (e.g., health test) were similar for

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[6]The 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. By the summer of 1941, the STSA moved away from a national lottery to administrative selection, conducted by more than 6,000 local boards. 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.

draftees.[7] Once inducted, an enlisted man's occupation in the military depended on factors such as education and occupation prior to enlistment, and on race. It did not depend on either volunteer status or the county where the soldier was coming from.[8] The main determinants for assignment were prior occupation and the level of education. We will return to discuss and address these issues later when we discuss the empirical analysis.

On December 5, 1942, an executive order banned volunteers so that the government could have full control over the labor force.

2.3 Racial Discrimination at the Onset of WWII

When the U.S. entered WWII, there was strong racial discrimination both in the society at large and within the Army. Black men had very limited civil and political liberties, due to both formal and informal discrimination that severely restricted their political, economic, and social opportunities relative to the white population. This had been true for decades. Starting from the late 1890s, many Southern states passed laws intended to disenfranchise the Black population (Woodward, 2002). Racial segregation meant that the Black population had access to fewer and lower quality to public and private goods (e.g., police protection, restaurants, schools, water fountains, buses). Interracial marriages and sometimes even non-marital sexual relationships were made illegal (Packard, 2003).

Discrimination was often exercised informally by organizations such as the Ku Klux Klan, and more generally by coordinated actions of the white community. Between 1882 and 1968, approximately 3,446 Blacks were lynched (Tuskegee Institute, 2020). Black men and women were excluded from most non-menial jobs (Sharfstein, 2011).

There was substantial geographical variation in the degree of discrimination. 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 (Vile, 2003). Many schools in Illinois, Ohio, Pennsylvania, and New Jersey were

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[7]Acemoglu et al. (2004); Aizer et al. (2020); Ferrara (2018) discuss the most common individual characteristics typically considered by local boards for deferrals or exemptions, such as marital status, fatherhood, farm status, or German, Asian, and Italian ancestry.

[8]There is evidence that volunteers had some degree of discretion in choosing between branches in the U.S. military (Ferrara, 2018; Flynn, 1993). Yet, there was no discretion for occupations or assignments within the Army, which is the focus of our empirical analysis.

completely segregated, even though it was *de jure* illegal. Similarly, white residents *de facto* enforced racial residential segregation in most northern and western cities (Shertzer and Walsh, 2019).

Race relations within the U.S. military mirrored those of the nation. Black soldiers 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, whereas white soldiers served under white officers only. Enlisted Black men mostly served in non-combat units, and the Army had only five Black officers.[9] At the onset of the war, and during the period considered in our paper, only the Army allowed Black soldiers.[10]

Our estimates will capture both the discouragement effect of discrimination in society and within the army on Black enlistment.

2.4 Contemporary Discussions about Black Involvement in WWII

When WWII erupted, a heated debate emerged within the Black community. There was much disappointment in the lack of social progress following WWI, when 350,000 Black men enlisted and hoped that the white establishment would observe the value and patriotism and reduce racial discrimination. Based on what was known at the time, the discriminatory policies of the U.S. seemed little better than the those in Axis powers.[11]

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[9]For a detailed description of race relations and Black enlistment in WWII see Lee (2000) and Flynn (1984).

[10]The marines had no Black enlisted men in combat infantry, while the Navy Seabees and the United States Air Force had very few of them. One notable exception was the Tuskegee Airmen.

[11]There were many explicit comparisons of the U.S. to the Nazis. For example, prior to Pearl Harbor, in 1937, *The New York Amsterdam* wrote "[Nazis' plan to segregate Jews on German railways was] taking a leaf from United States Jim Crow practices". In 1935, it wrote "If the Swastika is an emblem of racial oppression, the Stars and Stripes are equally so....". "Why should Negroes fight for democracy abroad when they are refused democracy in every American activity except tax paying?" wrote George Schuyler, columnist for the Pittsburgh Courier. Langston Hughes 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" (Hughes, 1943). 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?".

Soon after Pearl Harbor, in a poignant (and later famous) letter to the *Pittsburgh Courier* on January 31, 1942, 26-year-old Black, James G. Thompson, famously wrote "Should I sacrifice my life to live half American? ... Will things be better for the next generation in the peace to follow?... Is the kind of America I know worth defending?" This letter became famous both as an articulation of the injustices that motivated the reluctance of Black Americans to fight and as the instigation of what he called the Double V campaign: "The first V for victory over our enemies from without, the second V for victory for our enemies from within".

The U.S. government embarked on an extensive recruitment campaign starting in the Spring of 1942. This was in part a response to the low Black enlistment rates during the beginning of the war. Some also pushed for better treatment within the U.S. military. The latter efforts had very limited success. Nevertheless, Black volunteer enlistment dramatically increased in the second half of 1942, and remained high until the end of the year, when volunteer enlistment was abolished.

To isolate the impact of discrimination, and to avoid the possibly confounding influence of the later propaganda, we focus on a short window of time before the onset of recruiting efforts. Focusing on the two months after the attack on Pearl Harbor also makes it less likely that our estimates may be confounded by government policies aimed at expanding industrial production, which may have altered the incentives to volunteer differentially for Black and white individuals.

3 Data

3.1 Enlistment Data

Enlistment is reported at the individual level by the World War II Army Enlistment Records (NARA-AAD), 1938-1946 (NARA, 2002). It includes 9,039,840 individual service records 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 and rank at the time of induction. The data were digitized from induction cards and report the county where a man registered for

Selective Service.[12] In most cases, this is from 1940, more than one year before Pearl Harbor. This mitigates concerns of endogenous location in response to the U.S.'s entry into WWII.

The date of induction on the card does not necessarily reflect the date when a volunteer applied to Army recruiters or when a draftee received his "call-up" notice. During the early stages of the war, there were delays, as the military did not always have adequate facilities for housing and training following the rapid increase in the number of soldiers. This may have been particularly binding for Black soldiers given the Army's initial reluctance to enlist them. We return to this point in more detail in the next section, when discussing our empirical specification. We restrict our attention to Black men and white men, who, taken together, account for more than 93% of all individuals in the enlistment data. We discuss other races later in the paper.

The main analysis focuses on the 48 mainland states for which the data can be disaggregated to the county level.[13] Our main sample includes 2,291 counties, and observations are at the county-race-week level.[14] The aggregation is necessary to normalize enlistment by the number of eligible men. All descriptive statistics and regressions presented below are weighed by the number of enlistable men.

The main outcome of interest in our analysis is the number of volunteers of each race in each county in each week for every 100,000 eligible men. Henceforth, enlistment "rate" refers to enlistment per 100,000 enlistable individuals. We use the 1940 full-count U.S. Census to calculate the latter and adjust it to account for the change in eligible ages on December 20, 1941.[15] The U.S. Census also provides a number of control variables that we describe below, when presenting the results. Other datasets will be discussed as they become relevant.

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[12]This dataset has been used in several recent studies, such as Caprettini and Voth (2020) and Fouka (2020).

[13]Information is not reported from all Army boards from Service Command 7 (Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming) (NARA, 2002). In an unreported robustness check, we find similar results if we omit these states from our estimate.

[14]782 counties are omitted due to the lack of variation in enlistment rates during the time window considered in our analysis. These counties are dropped from the analysis when including the most stringent set of fixed effects that we describe in detail below.

[15]See Section 2.

3.2 Descriptive Statistics

3.2.1 County Characteristics

Table 1 presents the descriptive statistics for county-specific characteristics that do not vary by race.[16] Column 1 of Panel A shows that 10.4% of the population was Black and 89% was white in 1940. Other races comprise .6% of the sample. The average share of the population with ancestry from Germany, Italy, and Japan (the Axis powers) was 1.7%, 3.2%, and .09% respectively. In Panels B and C, we report additional variables that might have influenced the decision to fight and may be correlated with the level of discrimination prevailing in the county, as we show in the next paragraph. In Panel B, we present WWII government spending (e.g. contracts for industrial and war-related production) and New Deal grants per capita. Both variables display significant degree of variation in our sample. Panel C reports the (as-the-crow-flies) distance from the center of each county to Japan, Pearl Harbor, and Germany respectively.

3.2.2 Index of Historical Discrimination

To measure discrimination with one index, we calculate the first principal component of political and social discrimination for the county of enlistment, combining different variables identified in the literature. The component variables are the presence of the Ku Klux Klan from 1915 to 1940, the number of lynchings until 1939, the Democratic vote share in Congressional and Presidential elections between 1900 and 1930, and measures of racial residential segregation and isolation.[17] We interpret the index as a proxy for the degree of discrimination experienced by enlisted men. It also captures the experience of their forefathers, which was likely transmitted across generations.

We report the discrimination index in Panel D of Table 1, and plot its distribution across counties in Figure 1. Since our regressions exploit within state variation, we present the distribution of the discrimination index demeaned by state fixed effects. The map illustrates the substantial variation across and within states in the data.

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[16]Appendix Table A.1 provides a detailed description and the source of each variable.

[17]Appendix Table A.4 lists the sources for each variable.

3.2.3 Correlates of the Discrimination Index

Column (3) of Table 1 reports the county-level correlates of discrimination by regressing the discrimination index against each of the variables listed in the row headings. All regressions control for state fixed effects and are weighed by the number of enlistable individuals during the sample period considered in our analysis (so as to make these regressions comparable to those presented below). On average, counties with higher discrimination had a higher Black population share, higher population density (more urban), and a higher immigrant population share from European Axis countries (Germany and Italy). Counties with higher historical discrimination were further from Japan and Pearl Harbor, and received higher per capita WWII and non-agricultural New Deal spending.[18]

3.2.4 Race Specific Correlates of Discrimination

Table 2 presents the descriptive statistics and correlates of the discrimination index for Black and white races in Panels A and B respectively.[19] As expected, white individuals are on average older and more educated than Black individuals (Collins and Margo, 2006). The employment and the labor force participation rates for men 18-64 are similar among white and Black Americans. However, the latter are more likely to be employed in agriculture, and less likely to work in manufacturing. Consistent with the literature (Collins and Margo, 2006; Margo, 1995), both wages and occupational income scores are lower for Black men than for white men.[20]

Panel A of Table 2 presents a selected number of variables that may have influenced Black Americans' decision to enlist in WWII (see also the discussion in Section 2). The 1936 average membership in Black Churches was 4.6%, and around 41% of Black individuals in our sample lived in a county which had at least one NAACP chapter in 1940.[21] The data also reveal that, in our sample, 16% of the Black men who were

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[18]All correlates are measured prior to Pearl Harbor, except for per capita WWII spending, which is measured over the entire WWII period.

[19]Appendix Table A.2 provides a detailed description and the source of each variable presented in Table 2.

[20]Occupational income scores are a standard measure of lifetime earnings used in the economic history literature and are calculated (for each corresponding year) using the median income of a job category in 1950 as benchmark (Abramitzky et al., 2014).

[21]Data on the local presence of NAACP chapters come from Gregory and Estrada (2019). Also, see Calderon et al. (2019) for a detailed description these data. Data on Black churches are taken from the Census of Religious Bodies. We measure NAACP presence as an indicator variable equal

eligible to serve in WWI were veterans (as of 1930).[22] Finally, amongst Black men who were eligible to serve in WWII, more than 11% lived in a household with a WWI veteran. Around half of them lived with a veteran who was the household head (and the other half lived with a veteran who was not the household head).[23]

In column (3), we report the coefficient for regressions of the discrimination index against each race-specific variable. To keep results from this exercise comparable to the regression analysis conducted below, all regressions are weighed by the number of eligible individuals of each race, and partial out state fixed effects.[24] As it appears, discrimination is positively associated with Black and white labor force participation – a pattern consistent with the fact that the discrimination index takes on higher values in more urban places (Table 1). In line with discrimination being higher in more urban areas, both Black Church membership and NAACP presence are positively associated with the discrimination index. There is instead no statistically significant relationship between the presence of WWI veterans and the discrimination index.

Table 2 also shows that discrimination is more positively (resp. negatively) associated with the manufacturing (resp. agriculture) employment share for white men than Black men. Moreover, as expected, wage and occupational income scores are higher for white men than for Black men in counties with higher discrimination. Such race-county-specific correlates with discrimination are important to keep in mind for identification. In the regression analysis, we will address such difference by controlling for county-race-specific variables interacted with week fixed effects (in addition to county-race, county-week, and race-week fixed effects).

3.3 Enlistment Patterns

Our main outcome of interest is the weekly volunteer rate (expressed per 100,000 enlistable individuals) of Black men and white men. We plot its distribution across counties for the 8 weeks after the attack on Pearl Harbor in Figures A.1 and A.2. Since

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to one if a county had at least one NAACP chapter between 1919 and 1940. Membership in Black churches is the share of the county population that has membership in an Black church in 1936.

[22]WWI veteran is reported in the 1930 (and not in the 1940) census. We follow Mazumder (2019) and Campante and Yanagizawa-Drott (2018) and use age in 1930 to predict whether a man is eligible to serve in WWI and WWII. See Appendix B for more details.

[23]Appendix Table A.3 presents the descriptive statistics from the enlistment records at the individuals level for the eight weeks before and the eight weeks after the Pearl Harbor attack.

[24]Column (5) presents the standardized beta coefficients to ease the interpretation of coefficients. Robust standard errors are reported in column (4).

the regression estimates will exploit within-state variation, we present enlistment rates demeaned by state fixed effects. The maps illustrates the substantial variation across and within states for both Black and white volunteers.

Next, in Figure 2, we plot the average Black volunteer enlistment rate in each of the 8 weeks before and after Pearl Harbor.[25] We divide the sample into counties with values of the discrimination index above (solid line) and below (dashed line) the sample median. The data show that enlistment rates were negligible before the Pearl Harbor attack for all counties, and did not differ between high and low discrimination counties. Starting from week one, which begins the Monday after the Pearl Harbor attack, we observe an increase in enlistment rates, with the increase being substantially smaller in counties with higher discrimination.

Figure 3 plots the analogous data for white men. The temporal pattern is similar to that for Black men, but the cross-county variation is very different. There is a dramatic increase in enlistment starting from week one; however, there is little difference between counties with high and low discrimination. The magnitude of the increase in volunteer enlistment is higher for white than for Black men in both types of counties.

These figures illustrate the variation driving the DDD estimates presented later in the paper. One can visualize the DDD as follows. In Figures 2 and 3, consider the average vertical distance between volunteer enlistment in the high and low discrimination counties. The DDD is the difference of the average vertical distance before and after Pearl Harbor for a) Black men in Figure 2 and b) white men in Figure 3.

These patterns have important implications. The increase in volunteer enlistment after Pearl Harbor across races is consistent with news of the event being immediately broadcasted across the nation, contributing to a sudden surge in enlistment. The fact that Black enlistment increased less in places with higher discrimination is consistent with the hypothesis that discrimination discouraged volunteering behavior. Both the similarity in response for white men across counties and the fact that overall white volunteer enlistment was higher than Black enlistment are consistent with this interpretation, since racial discrimination was targeted at Black Americans.

Last, but not least, the figures show clearly that there are no pre-trends. Until

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[25]To have a fully symmetric window around the attack on Pearl Harbor, we consider two 8-week periods: from week -7 to week 0; and from week 1 to week 8. Week 0 (week 1) is defined as the week ending (starting) on Sunday, December the 7th (Monday, December the 8th).

Pearl Harbor, volunteer enlistment rates for both races and in all counties evolved along parallel trends.

4 Results

4.1 Triple Difference Specification

The baseline empirical strategy is a *difference-in-difference-in-differences* (DDD) estimation. It examines the causal effect of discrimination in Black volunteer enlistment rates. We compare volunteer enlistment rates for men who lived in counties with varying levels of historical discrimination, before and after the Pearl Harbor attack, between Black and white men.

The intuition is as follows. If discrimination discouraged Black enlistment, their volunteer rates should be lower in counties with higher levels of discrimination. To understand whether higher enlistment in counties with lower discrimination reflects differences in the willingness to contribute to the war effort or differences in other factors, such as outside job opportunities, we compare volunteering behavior before and after Pearl Harbor. The attack transformed WWII from one about abstract ideas in distant lands into a full-fledged war to defend the United States over night. However, it did not change outside job opportunities in the short time window of our analysis. One may also be concerned that it was easier to volunteer in counties with low discrimination after Pearl Harbor. For example, Army recruiting offices may be more accessible there. To address this and related concerns, we compare Black and white enlistment.

As we discussed in the previous section, conceptually, the DDD is the difference between the *difference-in-differences* (DD) for Black men in high versus low discrimination counties before and after Pearl Harbor and the same DD for white men. The baseline specification is the following:

$$y_{ijt} = \alpha + \beta Discrimination_j \times PearlHarbor_t \times Black_{ij} + \Gamma x_{ijt} + \theta_{ij} + \lambda_{it} + \pi_{jt} + \varepsilon_{ijt}. \quad (1)$$

The dependent variable, y_{ijt}, is the share of eligible men of race i in county j who were inducted as volunteers in the U.S. Army during week t. It is a function of the triple interaction of a measure of historical discrimination in county j, $Discrimination_j$, a

dummy variable that equals one for the 8 weeks after the attack on Pearl Harbor, $PearlHarbor_t$, and a dummy variable that equals one if group i is Black, $Black_{ij}$. The specification is fully saturated, but the lower order interaction terms and the uninteracted terms are absorbed by the fixed effects: county-race fixed effects, county-week fixed effects, and race-week fixed effects. X_{ijt} is a vector of county-race specific controls interacted with week fixed effects, which we discuss when we present the results. All regressions are weighed by the race-specific population of eligible men in each county-week. Standard errors are clustered at the county level.

Only the triple interaction term can be interpreted as plausibly exogenous. County-race fixed effects control for factors that vary by race and county such as occupation or educational attainment. County-week fixed effects control for all differences across counties that may vary over time, such as economic conditions. Race-week fixed effects control for differences across races that may vary over time, such as changes in war propaganda (at the national level) that targets a specific race. We describe and motivate the vector of county-race controls later when presenting our results.

The main caveat to our strategy is omitted variables. This seems unlikely given the extensive fixed effects and race-time-county specific controls in the baseline. For an omitted variable to confound our estimate, it would have to differentially affect Black volunteer enlistment depending on the prevailing historical discrimination in the county, in a way that differs before and after Pearl Harbor, despite the baseline controls.Our empirical strategy minimizes omitted variables concerns by exploiting the sharp change induced by the attack on Pearl Harbor. Moreover, by focusing on a narrow window of time around the attack, we reduce the possibility that other factors (e.g., social norms, values, segregation within the U.S. military, WWII economic policy) may have changed. We discuss these and other robustness issues after presenting the main results.

4.2   Baseline Estimates

Table 3 presents the baseline DDD estimates. In column (1), we start from a specification that includes the uninteracted Black dummy variable and the other lower order interaction terms in lieu of the fixed effects.[26] The coefficient on the Black dummy is negative and highly statistically significant. It shows that, prior to Pearl

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[26]We always estimate fully saturated regressions. Not all lower order interactions are reported for the sake of brevity.

Harbor, Black volunteer enlistment rates were lower than those for white men. The interaction of the Black and the post-Pearl Harbor dummy variables is also negative and statistically significant at the 1% level. This means that relative Black enlistment declined after Pearl Harbor. The interaction between discrimination and the Black dummy is negative, but small in magnitude and statistically insignificant. Finally, the coefficient on the triple interaction term, our main variable of interest, is negative and statistically significant. After Pearl Harbor, the decline in relative enlistment was larger in counties with higher levels of historical discrimination. These estimated differences quantify the patterns shown earlier in in Figures 2 and 3 .

In columns (2) to (5), we gradually introduce the baseline controls, which absorb the lower order interaction terms and state fixed effects. To understand the motivation behind the fixed effects, it is useful to consider the potential omitted variables in the estimate in column (1).

First, one may be concerned about county-specific characteristics that differentially affected the decision to volunteer for white and Black men. For example, individuals who owned farms were exempted and discouraged from joining the military (Acemoglu et al., 2004), while farm ownership differed between Black and white men. As long as these differences did not vary before and after Pearl Harbor, county-race fixed effects take care of them.

Second, military participation may differ across races for reasons other than discrimination. Black men may on average live in areas that are less exposed to Army propaganda, and may thus be less informed about how to join and the benefits of joining. The inclusion of race-week fixed effects addresses concerns such as this.

Third, there are important differences across counties that vary over time. For example, the emotional response to join after Pearl Harbor may have been stronger in counties that were geographically closer to the attack. Also, New Deal relief spending varied substantially across counties, and has been shown to increase patriotism during WWII (Caprettini and Voth, 2020). County-week fixed effects address these and similar concerns. Recall, also, that Table 1 showed that discrimination was correlated with several county characteristics. Including county-week fixed effects is similar to – in fact more general than – controlling for the interactions of each of these variables with week fixed effects.

Finally, there may be confounding factors that vary at the race, county, and week level. These are not addressed by the fixed effects discussed thus far. In our

context, one specific concern is that differences in education and occupation between Black and white men could be larger in counties with higher discrimination (Margo, 1990; Naidu, 2012).[27] This undermines our identification, since it implies race-county-specific differences in the opportunity cost of enlisting in the military in the post-Pearl Harbor period.[28]

To address the concern that the correlation between historical discrimination and the racial gap in economic and social opportunities may influence volunteer rates of either rates in the weeks right after Pearl Harbor, we calculate the following variables for each race in each county in 1940: the share in the labor force, employment rate, average years of education, average age, average wages, average occupational income scores, share of manufacturing and agricultural employment, share of farmers and log population.[29] Then, we add the interaction between each variable and week fixed effects.

Another concern is that pre-Pearl Harbor migration rates may have differed for Black and white men between counties with higher and lower discrimination. For example, if Black men were more likely to move out of counties with higher discrimination, and movers were less likely to enlist (e.g., because they were the most politically engaged and sensitive to discrimination), then the DDD will be biased downwards. To address this, we take the race-specific rate of cross-county net migration between 1930 and 1940 estimated in Gardner and Cohen (1992), and control for its interaction with week fixed effects.[30]

The last main concern is motivated by historical accounts that local boards in the South resisted Black enlistment and the fact that there was sometimes a delay between when a man volunteered or was called up for the draft and the time he was inducted (Flynn, 1984), the date we observe in the NARA dataset. One may thus be

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[27]In our sample, and consistent with the literature, education and wages are negatively associated with our discrimination measure within states. Estimates available upon request.

[28]Recent studies find that war industry and spending led to significant skill upgrading for Black men and a reduction in the racial wage gap Aizer et al. (2020) and Ferrara (2018). Fishback et al. (2020) documents that access to government subsidies, such as those from the New Deal, varied by race. These studies do not show a correlation between the race-gap in the respective variables of interest and regional discrimination.

[29]Labor force participation and employment rates are highly correlated, but conceptually different. The former refers to the number of men in the labor force and the latter measures the number of men who were employed. We scale both measures by the number of men of working age. See Appendix Table A.2 for more details.

[30]Recall that the location observed in the NARA dataset is usually the location in 1940.

worried that relatively low Black volunteer enlistment rates in counties with higher discrimination were driven by the behavior of local boards rather than by the reduced motivation of Black men. A related concern is that Pearl Harbor led to a sudden surge in enlistment for which the Army was unprepared, resulting in an initial shortage of barracks and other facilities (Ferrara, 2018). If this deficit was more pronounced for Black soldiers in areas with higher levels of discrimination, the DDD estimate will be biased upwards.[31]

To address these potential issues, we control for the draft enlistment race for each race, county and week. Local boards had more control over the timing for draftees, since they controlled the call up and the subsequent induction. For volunteers, the boards only control the timing of induction. Volunteers and drafted men were pooled together after induction, living and training in the same facilities.

The baseline DDD coefficient reported in column 5 is -2.33, and is statistically significant at the 5% level. This implies that, after Pearl Harbor, in a county where the index of discrimination was one standard deviation (1.5) lower, the volunteer enlistment of Black men was 1.4 standard deviations, or 3.5 per 100,000 eligible individuals, higher.[32] Said differently, reducing the level of historical discrimination by one standard deviation would have increased the volunteer enlistment of Black men by a factor of thirty, relative to average of the pre-Pearl Harbor period (0.11 per 100,000 eligible individuals). Considering that the average Black volunteer enlistment rate during the entire window considered in our analysis is 4.2 per 100,000 eligible individuals and that the inter-quartile range of the index of discrimination is 1.7, Black men would have been 95% more willing to volunteer in a county at the 25th percentile of the index of discrimination, as compared to those living in a county at the 75th percentile.

For comparison, Fouka (2020) finds that exposure to anti-German language laws during WWI lowered German Americans' propensity to volunteer during WWII by 2.6 percentage-points (11%) relative to cohorts of Germans who were not directly exposed to these laws. Caprettini and Voth (2020) documents that doubling New Deal expenditures in a county raised volunteering by 8%.

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[31]Recall from the Background Section that the Army was segregated such that Black soldiers required separate barracks, canteens, etc.

[32]This number is obtained by multiplying the coefficient in column 5 (-2.33) by one standard deviation of the discrimination index (1.4), and dividing the resulting quantity by one standard deviation of the pre-Pearl Harbor Black volunteer enlistment rate (2.5).

In column (6), we replace the controls of the race-county-specific draft enlistment rate that is measured contemporaneously with those that are lagged by one week. This addresses the possibility that draft and volunteer enlistment rates were simultaneously determined, such that including contemporaneous draft rates controls for an outcome. Reassuringly, the change in the controls has little effect on the triple difference estimate.

Next, in column (7), we address the concern that our effects may partly capture race misclassification. This could be an active choice for Black men who "passed for white" to escape discrimination, or enumeration mistake on the part of the Army recruiter who may mistake mixed race men for white.[33] We address this potential issue by controlling for the county-specific rates of race change from Black to white in the 1930 and 1940 U.S. populations censuses estimated by Dahis et al. (2019) interacted with the Black and the post-Pearl Harbor dummy variable. Our triple interaction of interest is unchanged.[34]

Finally, in Table A.5, we consider the possibility of spatially correlated errors. In column (2), we cluster standard errors at the commuting zone (CZ) level. In columns (3) and (4), we adjust standard errors with the Conley procedure. Standard errors become somewhat larger, but results are still statistically significant at conventional levels, with p-values ranging between 0.055 and 0.060.

4.3   Additional Controls

Table 4 examines the robustness of our baseline estimates to additional controls that may be correlated with discrimination. All estimates include the triple interaction of each additional variable with the Black and the post-Pearl Harbor dummy variables, as well as all lower order interactions.

We begin by considering two important organizations for the Black community. The first is the 1936 county-level membership rate in Black Churches, which represented an important platform for communication and organization within the Black community (Chay and Munshi, 2015). The second is the presence of a chapter of the NAACP in the county in any year between 1919 and 1940. The NAACP was

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[33]The U.S. legally defined Black to be a person with any degree of African extract. Thus, mixed race men were Black, and some of them had appearances similar to white men. See Dahis et al. (2019) for a detailed discussion.

[34]Note that the number of observations in columns (6) and (7) are slightly different due to the limited availability of the additional controls.

very active in Black military recruitment, although this mostly happened after our study period during the Double V campaign. Next, we consider the distance to Pearl Harbor and to Germany – something that might affect the salience of the attack as well the immediacy of physical danger at the onset of the war. Finally, we consider the number of years in the Union as a proxy for the strength of national identity, which may influence volunteer enlistment. Columns (2)-(4) introduce these variables individually. The coefficient for the presence of NAACP interacted with the post-Pearl Harbor and the Black dummy is positive and statistically significant (column (2)); a similar relationship appears for the triple interaction with years in the Union (column (4)). Column (5) includes these variables in our baseline. The additional triple interactions are statistically insignificant, while the DDD coefficient of interest remains similar to the baseline shown in column (1).

In columns (6) to (8), we check that our results are robust to the inclusion of the triple interaction between the post-Pearl Harbor and Black dummy variables and different proxies for migration-induced peer effects. These are constructed by interacting county-to-county Black migration networks with the lagged volunteer rates in connected counties.[35] In column (6), we focus on all U.S. counties; in columns (7) and (8), we instead consider connected counties first within the same state and then in all states other than the one where the county belonged. The main coefficient of interest always remains very similar to the baseline estimate, reducing concerns that our results may be influenced by spillovers operating across counties.[36]

In Table 5, we consider the influence of Black WWI veterans, who may have had a positive or a negative influence on the motivation of a younger generation of Black men to enlist. On the one hand, historical accounts emphasize the disappointment in the Black community after WWI, which can reduce later enlistment. On the other hand, beliefs and values for military action are transmitted intergenerationally (Campante and Yanagizawa-Drott, 2018), suggesting that WWI participation may lead to higher enlistment during WWII. If Black WWI participation were correlated with discrimination, then the DDD estimate would be biased.

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[35]The 1940 Census of Population asked individuals their county of residence in 1935. We use this to construct the total Black migration rate for each county pair. We multiply these with (one week) lagged volunteer rates in connected counties, and sum over all of them to recover the weighed average volunteer rates in connected places for each county.

[36]Recall that the location in the data refers to 1940 – one year and half prior to Pearl Harbor – and is therefore unlikely to be endogenous.

We examine four measures of exposure to WWI veterans.[37] The first one is the number of Black WWI veterans in the county, scaled by the number of Black men in the county who, given their age, would have been eligible to serve in WWI. The second is the share of Black individuals in each county eligible to enlist in WWII and who were living in a household with a Black WWI veteran. The third and the fourth measures further distinguish between Black men eligible to serve in WWII living in households where the WWI veteran was and was not the household head. In column (2), we control for the first two measures. In column (3), we control for the third and the fourth variables. Finally, in columns (4) and (5), we add these controls to our baseline.

The estimates show that the triple interaction of interest is robust to the inclusion of these other variables. The estimates in columns (4) and (5) are similar in magnitude to the baseline reported in column (1).

4.4   Heterogeneous Effects

Table 6 examines the heterogeneous effects of discrimination, splitting the sample according to factors that might exacerbate or moderate its discouragement effects. At the bottom of the table, we report the p-value from Seemingly Unrelated Regressions (SURs) to compare the estimates from the two sub-samples.

Column (1) shows that the DDD coefficient is similar in Southern and non-Southern counties.[38]   Columns (2) and (3) show that the discouragement effect of discrimination is similar between counties with and without an NAACP chapter, and between counties with Black Church membership rates above and below the sample median. Even though the level of precision varies, coefficients in Panels A and B are relatively similar in magnitude for each column.

Next, columns (4) and (5) document that the discouragement effect is larger for counties that are further from (closer to) Pearl Harbor (Germany). Since distance to Germany is negatively correlated with distance to Pearl Harbor, the estimates are consistent, and imply that the discouragement effect was partly mitigated by the immediacy and the salience of the attack, as proxied for by distance to Pearl Harbor.

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[37]We use data from the 1930 U.S. Census, because WWI veteran status was asked only in this year, and not in 1940. See Appendix B for more details.

[38]We classify as Southern states: Alabama, Arkansas, Delaware, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

In column (6), we show that results are very similar for counties with above and below median years in the Union.

Column (7) suggests that the discouragement effect of discrimination is larger in counties with a higher share of eligible Black men living in households headed by WWI veterans. This is consistent with historical accounts that attribute part of the reluctance to fight in WWII to the disappointment from WWI. However, the p-value at the bottom of the table shows that the point estimates in the two subsamples are not statistically different from each other. Finally, column (8) documents that results are similar when splitting counties above and below the median of exposure to (migration-induced) peer effects.[39]

Taken together, these patterns indicate that the effects of discrimination are fairly similar across places with different characteristics. This suggests that the discouragement effect of discrimination trumped over a variety of other mediating factor. The only exception is the immediacy of danger and the salience of WWII, as proxied for by the distance to Pearl Harbor (and Germany).

We conclude this section by exploring how different components of the discrimination index influence our results. We examine the effects of each variable included in the index. Appendix Table A.6 presents the baseline specification, but replaces the discrimination index with each component variable. Interestingly, even though all of the triple interactions are negative, only the presence of the Ku Klux Klan in column (3) and the Democratic vote share in Congressional elections in column (5) are statistically significant at conventional levels. In column (7), we conduct a horse race, including all the triple interactions of the individual component variables in the same regression. The presence of the Ku Klux Klan and the Democratic vote share in Congressional elections remain statistically significant.

5   Japanese Americans

We complement the previous analysis by examining enlistment behavior of Japanese Americans – another notably disenfranchised group asked to fight for the United States during WWII.

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[39]These results are produced using volunteering behavior of Blacks in all connected counties. They remain unchanged, when considering either connected counties within the same state or connected counties from all states other than that of the specific county. These are not reported for brevity.

Japanese Americans not already in the military at the time of Pearl Harbor were deemed to be an "enemy race". Executive Order 9066, signed on February 19, 1942, authorized the forced internment of Japanese Americans. Army-directed "evacuations" began on March 24, 1942. People had six days notice to dispose of their property other than what they could carry, leading to enormous economic losses. Anyone who was at least 1/16th Japanese was forcibly relocated. Between 110,000 and 120,000 people of Japanese ancestry were subject to forced internment, including approximately 80,000 second generation and third generation Americans, 17,000 children under ten years of age, as well as several thousand elderly and handicapped.[40] Internment was implemented rigorously on the U.S. mainland. In Hawaii, only 1,500 individuals of Japanese descent (approximately 0.9% of the Japanese American population in Hawaii) were sent to the mainland for internment. Broader internment of Japanese Americans, which comprised approximately 30% of total Hawaiian population, was seen as practically infeasible.

To increase U.S. fighting capacity, on February 1, 1943, President Roosevelt announced the creation of a segregated battalion comprised of Japanese American soldiers commanded by white officers. With few exceptions, they were allowed to join only the Army and fought primarily in Europe. As with Black combat troops, Japanese American soldiers came to be known for exceptional bravery.[41]

We exploit the recruitment of Japanese American men for the military in 1943 together with variation in internment as another quasi-natural experiment for testing the role of disenfranchisement. The first cohort to be affected was inducted in March 1, 1943. We compare Japanese American enlistment before and after March 1, 1943,

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[40]The internment camps ended in 1945 following the Supreme Court decision, Endo v. the United States. It was ruled that the War Relocation Authority "has no authority to subject citizens who are concededly loyal to its leave procedure". The Supreme Court allowed Franklin Roosevelt to end internment one day before they publicly announced the decision (see *https://www.history.com/topics/world-war-ii/japanese-american-relocation*; last accessed on March 28, 2021).

[41]The most well-known is probably the 100th Infantry Division of the 442nd Infantry Regimental Combat Team. Because of the high rate of casualties the 100th Infantry Battalion sustained, it became known as the "Purple Heart Battalion". For its service during WWII, the 442nd (including the 100th prior to becoming part of it) received 21 Medals of Honor – America's highest military honor; in addition, it received 9,486 Purple Hearts, 8 Presidential Unit Citations, 559 Silver Stars, and 52 Distinguished Service Crosses among many other decorations. In 2012, the surviving members of the 442nd were made chevaliers of the French Légion d'Honneur for their actions, which contributed to the liberation of France during WWII and their heroic rescue of the Lost Battalion outside of Biffontaine (e.g. Congress, 1982; Kashima, 1997).

between Hawaii and the mainland. The War Department aimed to create an all Japanese-American combat unit with at least 2,000 initial volunteers. To be eligible for selective service, loyalty questions were administered to all Japanese American men.[42] Only those who provided acceptable answers were inducted into the military. Since Japanese American men had discretion over whether they were drafted, the draft rate reflects the motivation to enlist that we are interested in.[43] For consistency with our previous analysis, we restrict attention to the eight weeks before and after March 1, 1943.

Figure 4 shows that Japanese-American enlistment was almost zero prior to March 1st, consistent with the fact that, with very few exceptions, Japanese Americans had been banned from service. After the reform, there was a large spike in enlistment in Hawaii, but no noticeable change from the mainland. These patterns are consistent with less disenfranchised Japanese Americans living in Hawaii being more willing to volunteer. The reduction in enlistment in the last few weeks of the figure corresponds to the War Department's temporary pause in Japanese-American recruitment, which was introduced to assess the causes of low mainland enlistment rates (Castelnuovo, 2008).

For comparison, Figure 5 plots the analogous patterns for Chinese-Americans, who faced broadly similar degrees of formal and informal racial discrimination as Japanese-Americans prior to WWII but who were not the target of additional discrimination during the war. Chinese-Americans exhibit no change in the mainland-Hawaii enlistment gap before and after March 1, 1943.

We are unable to fully replicate the analysis for Black enlisted men with the sample of Japanese enlisted men because of the lack of more disaggregated discrimination data for the latter. Nevertheless, the patterns in this section are consistent with the main result that disenfranchisement and discrimination discouraged volunteer enlistment.[44]

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[42]The two most controversial "loyalty" questions were numbers 27 and 28. Question number 27 asked if second generation Japanese Americans (i.e. those born in the United States) were willing to serve in combat duty wherever they were ordered. Question number 28 asked if individuals would swear unqualified allegiance to the United States and forswear any form of allegiance to the Emperor of Japan. 17% of all registrants and approximately 20% of all second-generation Japanese Americans answered "No" to loyalty questions 27 and 28 (see, for instance, Lyon, 2012, and *https://encyclopedia.densho.org/Loyalty_ questionnaire/*).

[43]This interpretation is consistent with that of historians. See, for example, Hayashi (2010), Muller (2007), Omori (1999), Weglyn (1996).

[44]For completeness, we also examine the patterns of volunteer enlistment for other races around

6 Interpretation

The empirical results show that discrimination in U.S. society and the military discouraged Black volunteer enlistment at the onset of WWII. There are likely to be several underlying mechanisms for this result.

First, discrimination can reduce trust of Black men in the government – a factor critical for eliciting voluntary participation in military service (Levi et al., 1997). Second, military enlistment is a national public good. Discrimination might reduce an individual's willingness to provide such a public good by lowering the direct benefits that Black men obtained from the public good. Black men were disenfranchised, had limited access to public schools or health care (which were of lower quality than what was given to white Americans), and received much lower levels of protection from the government. Moreover, discrimination can lower the emotional value associated with the public good, weakening national identity. America in 1940 was a nation explicitly ruled by and intended to serve the interests of white Americans. The establishment openly followed Eugenics theory and believed in the genetic and moral superiority of those with European ancestry over all others (Guterl, 2009; Spiro, 2009).[45]

Third, rampant discrimination in the Army might affect enlistment. The effect of discrimination through this channel is ambiguous. On the one hand, discrimination affects a man's perception of how he will be treated in the Army. A man who has experienced more discrimination may expect worse treatment than a man who has experienced relatively less discrimination, and will thus be less motivated to enlist. On the other hand, Black men have fewer opportunities in places with more discrimination, since the county of origin was not a key factor in determining assignment. Thus, a Black man from a county with higher discrimination will have lower opportunity cost for joining the Army, and will be more likely to enlist.

Finally, a relevant mechanism that has featured prominently in the political psychology literature comes from the view that discrimination reduces a person's sense of

the eight weeks before and after Pearl Harbor. We discuss these results in Appendix C.

[45]Related to the idea that discrimination weakened national identity is the "activation" mechanism from the social psychology literature. Discrimination could have acted as cultural priming for Black individuals, such that the Pearl Harbor attack did not activate the salience of national identity as much for Black men as for white men. As a result, the surge in volunteer enlistment rates would have been lower amongst Black men relative to white men.

There is a large body of evidence on cultural priming in social and political psychology. For example, studies have documented that an individual can interpret the same event differently if she is primed with different cultural knowledge (Kitayama and Cohen, 2010).

self-efficacy (Oskooii, 2016, 2018). This, in turn, lowers civic and political engagement (Komisarchik et al., 2019). If enlistment during the war is a form of civic engagement, this will lead to discrimination reducing Black volunteer enlistment.

The main alternative explanation to our supply-side explanation is that low Black enlistment in high discrimination counties were driven by demand-side factors from the Army. As we discussed earlier in the paper, the main concern is that local boards in counties with high discrimination were more likely to turn away Black volunteers. Controlling for county-race-week-specific draft enlistment rates addresses this under the assumption that the Army had at least as much ability to turn away draftees as it did to turn away volunteers.

7   Conclusion

Findings in this paper show that discrimination lowers the motivation of men during war, and thus, reduces an important component of state capacity. Our work highlights another reason why discrimination is socially costly, besides the misallocation of talent and resources (Becker, 2010; Hsieh et al., 2019). In the context of volunteer enlistment that we examine, lower motivation results in reduced fighting capacity. However, motivation is also important for conscripted men, since it can increase the effectiveness of the troops.

Our study focuses on a narrow window of time during WWII. To contextualize our results in the larger landscape of war, and to think more broadly about the relationship between discrimination and state capacity during war, we refer to Levi et al. (1997): "The government policy maker moves first to demand voluntary contributions. Citizens respond to produce either enough voluntary contributions or too few to meet government's goals. The government policymaker then decides whether or not to introduce legal requirements. If citizens continue to evade or resist in large numbers, the government policymaker, given his demand for contributions and the amount of resistance, then decides how many resisters to persecute". Our study focuses on the first part of the story. In later parts of 1942, the U.S. government recognized the critical problem of low Black enlistment and focused significant recruitment efforts on the Black community, working together with groups such as the NAACP to promote the Double V campaign. Consistent with Levi et al. (1997), in December 1942, the U.S. government banned voluntary conscription and moved to mandatory and universal

conscription by draft.[46]

For policymakers, the implications of our results are clear: a state that requires equal contributions from its citizens should treat its citizens equally. This is an established ideology for America, a nation founded on the basis of the *social contract* and the principal of "no taxation without representation". Our results are simply a sober reminder that the principle needs to be applied to all citizens, if for no other reason, than to maximize state capacity and for national self preservation.

This study suggests several topics for future research. The first is the effect of WWII on civil rights for Black Americans.[47] The second is to better understand the intermediary channels of discrimination and the motivation to enlist that we discussed in the previous section. The answers will help us better understand the dynamic interplay between discrimination, and more generally, political inclusion, and state capacity.

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[46]This move was also partly dictated by the need to control labor supply for war production (Chambers, 1987).

[47]These investigations will complement recent studies about the relationship between participation in war and later consequences. Mazumder (2019) finds that European immigrants who fought in WWI were more likely to assimilate into the American society after the war. Schindler and Westcott (2021) and Indacochea (2019) document that inter-racial interactions in the Army during WWII and the Korean War had a positive, long-lasting impact on race relations in the United Kingdom and the United States, respectively. Ferrara (2018) finds that the WWII-induced labor shortage was an important factor behind the decline in the racial income gap during the 1940s and 1950s.

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Figures and Tables

Figure 1: Discrimination Index
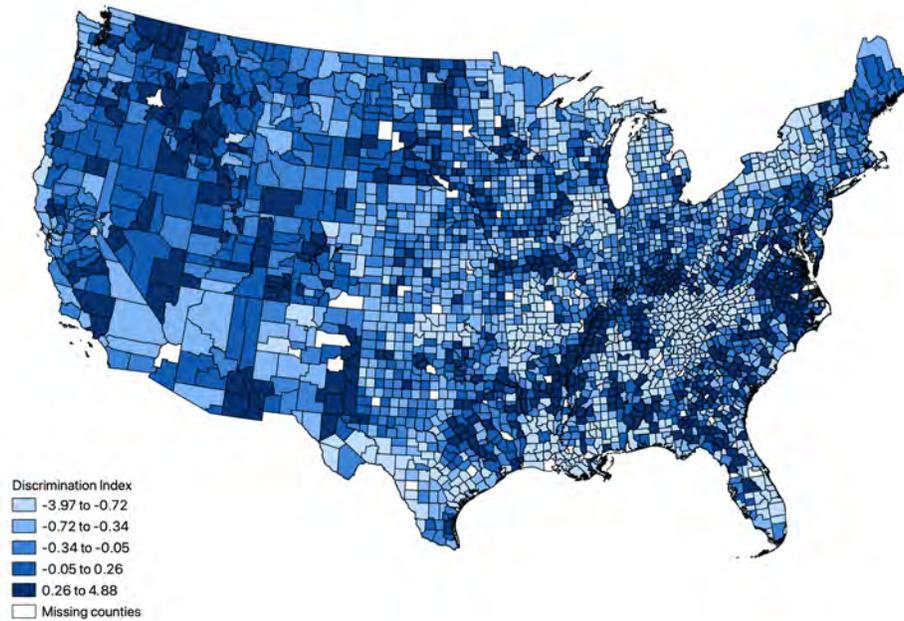
Notes: The map shows the distribution of the county-level Discrimination Index after partialling out state fixed effects.

Figure 2: Volunteer Enlistment, Black Americans
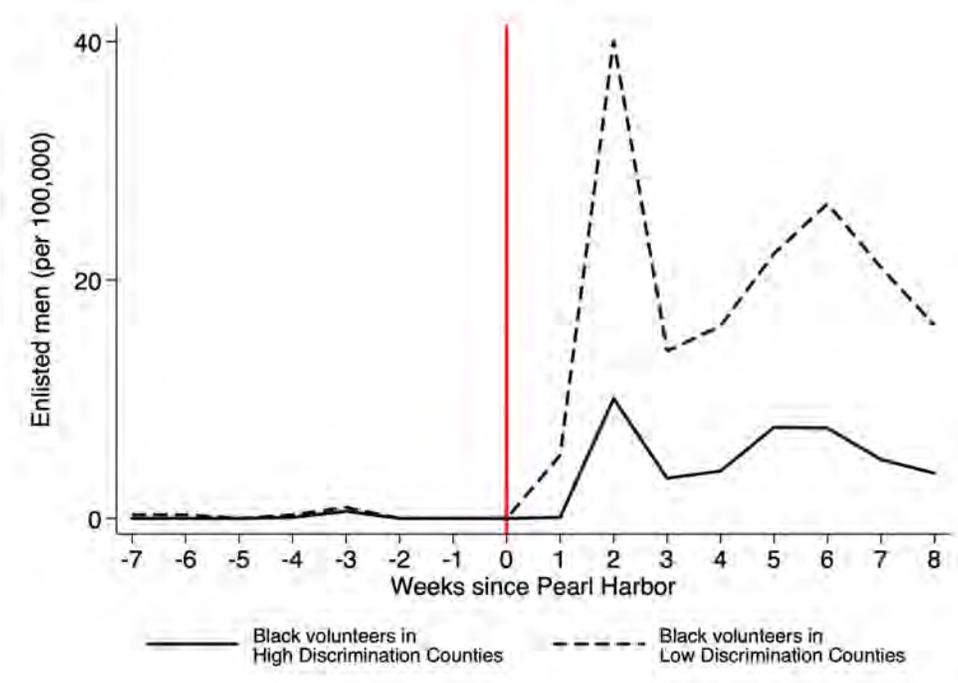
Notes: The y-axis reports the rate of enlisted Black volunteer enlistment rate per 100,000 enlistable individuals (by week). The x-axis reports the week since the Pearl Harbor attack (coded as week 0). Black solid (resp. dashed) line refers to Black volunteers in high (resp. low) discrimination counties, i.e. counties with a discrimination index above (resp. below) the sample median.

Figure 3: Volunteer Enlistment, White Americans
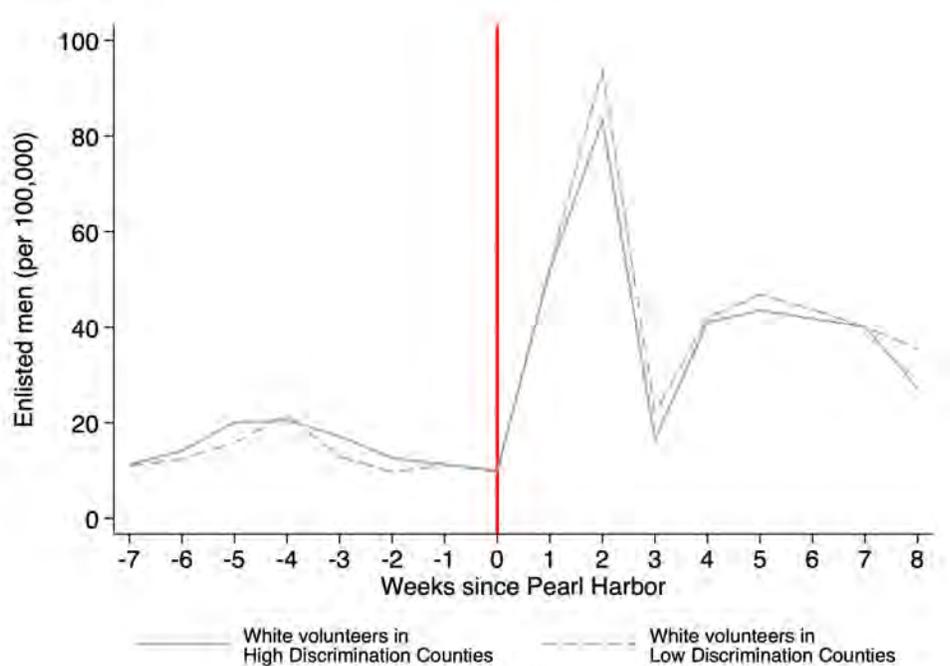
Notes: The y-axis reports the rate of enlisted white volunteer enlistment rate per 100,000 enlistable individuals (by week). The x-axis reports the week since the Pearl Harbor attack (coded as week 0). Grey solid (resp. dashed) line refers to white volunteers in high (resp. low) discrimination counties, i.e. counties with a discrimination index above (resp. below) the sample median.

Figure 4: Japanese American Enlistment: Mainland vs Hawaii
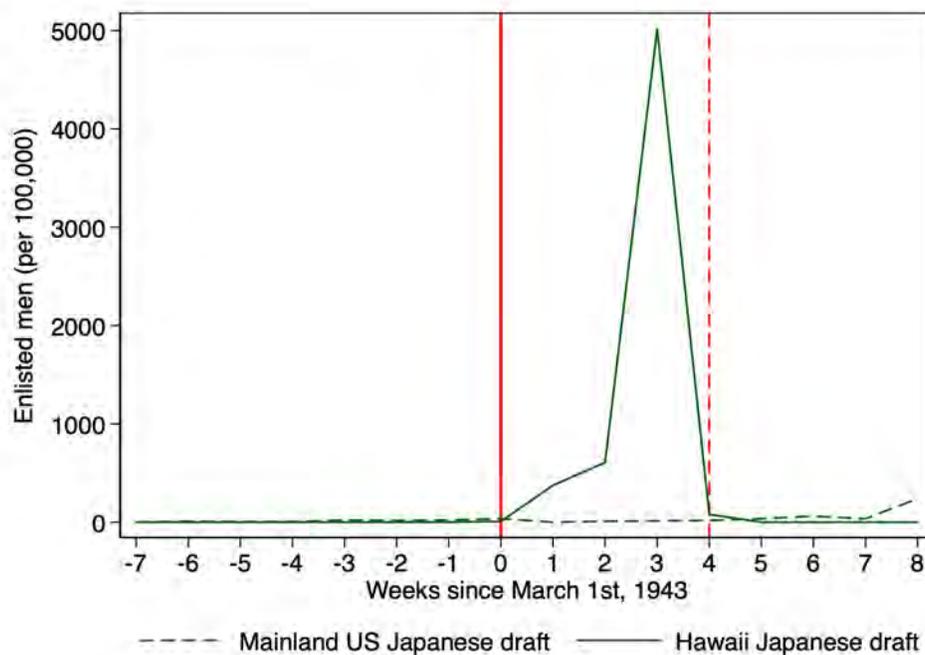
Notes: The y-axis reports the draft rate per 100,000 enlistable individuals (by race and week). The x-axis reports the week since the March 1st, 1943 enlistment (coded as week 0). Solid (resp. dashed) line refers to the rate of draftees in Hawaii (resp. mainland U.S.).

Figure 5: Chinese American Enlistment: Mainland vs Hawaii
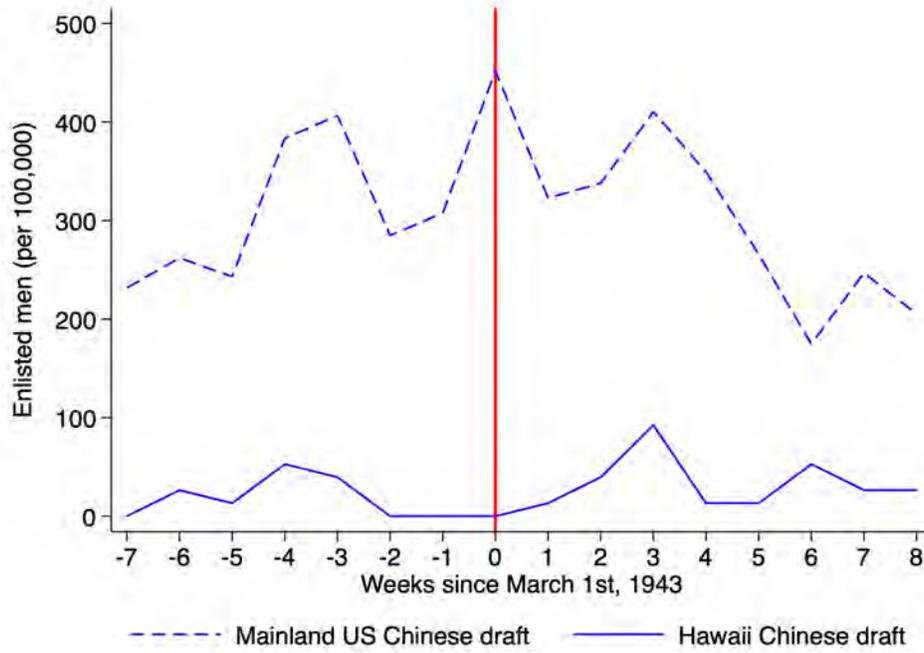
Notes: The y-axis reports the draft rate per 100,000 enlistable individuals (by race and week). The x-axis reports the week since the March 1st, 1943 enlistment (coded as week 0). Solid (resp. dashed) line refers to the rate of draftees in Hawaii (resp. mainland U.S.).

Table 1: Discrimination Index and its Correlates

	Mean (1)	Std. Dev. (2)	Dependent Variable: Discrimination Index				
			Coeff. (3)	Std. Err. (4)	Standardized Coeff. (5)	Obs. (6)	R-Squared (7)
A. Demography							
Black Population Share	0.104	0.152	3.825	(0.155)	0.471	2,291	0.803
White Population Share	0.890	0.157	-3.09	(0.144)	-0.144	2,291	0.792
German (Ancestry) Population Share	1.713	1.740	0.142	(0.015)	0.111	2,291	0.759
Italian (Ancestry) Population Share	3.172	4.147	0.071	(0.008)	0.084	2,291	0.759
Japanese (Ancestry) Population Share	0.088	0.340	0.111	(0.080)	0.019	2,291	0.749
Log Population Density	-1.183	2.208	0.213	(0.009)	0.162	2,291	0.792
B. Government Spending							
WWII Spending per capita (1,000 Dollars)	0.590	0.664	0.063	(0.026)	0.033	2,291	0.750
New Deal Agricultural Grants per capita (1,000 Dollars)	0.023	0.040	-4.063	(0.491)	-0.189	2,291	0.756
New Deal - Other Grants per capita (1,000 Dollars)	0.213	0.121	2.126	(0.160)	0.151	2,291	0.767
C. Geography							
Distance from Japan (1,000 km)	10.34	0.716	0.577	(0.118)	0.266	2,279	0.753
Distance from Pearl Harbor (1,000 km)	6.973	1.076	0.463	(0.122)	0.266	2,279	0.752
Distance from Germany (1,000 km)	7.179	0.864	-0.012	(0.145)	-0.005	2,279	0.751
D. Discrimination Index	*0.042*	*1.536*					

Notes: Observations are at the county level. Each row is one regression. The outcome variable is the Discrimination Index and the explanatory variables are stated in the row headings. *New Deal - Other Grants per capita* includes grants from the Relief Expenditure Program, Public Work Program, and Housing Loans and Insurance Program. All regressions control for state fixed effects and are weighed by the total number of enlistable men of both races in 1940.

Table 2: Discrimination Index and its Correlates, by Race

	Mean (1)	Std. Dev. (2)	Coeff. (3)	Std. Err. (4)	Standardized Coeff. (5)	Obs. (6)	R-Squared (7)
				Dependent Variable: Discrimination Index			
				Panel A: Black Americans			
Age	27.49	2.765	0.111	(0.012)	0.323	2,291	0.712
Years of Education	7.382	1.643	0.220	(0.021)	0.276	2,291	0.715
Share in Labor Force	0.89	0.074	1.368	(0.285)	0.101	2,291	0.704
Share Employed	0.807	0.1	0.327	(0.267)	0.028	2,291	0.701
in Manufacturing	0.158	0.096	0.300	(0.240)	0.023	2,291	0.701
in Farming	0.187	0.201	-0.706	(0.143)	-0.078	2,291	0.704
Log Wages	5.006	1.363	-0.011	(0.017)	-0.011	2,291	0.701
Log Occupation Income Score	2.833	0.173	1.281	(0.151)	0.165	2,291	0.710
Share of Black Church Members	0.046	0.078	3.703	(0.245)	0.269	1,900	0.809
Presence of NAACP Chapter	0.415	0.493	0.359	(0.032)	0.069	2,291	0.811
Black WWI Veterans as a Share of Eligible Men	0.161	0.166	-0.283	(0.183)	-0.029	2,280	0.749
Share of WWII Eligible Black Men Living with WWI Vet	0.111	0.135	-0.121	(0.209)	-0.010	2,232	0.748
Veteran is Household Head	0.064	0.098	0.255	(0.279)	0.015	2,232	0.748
Veteran is not Household Head	0.052	0.102	-0.374	(0.278)	-0.024	2,232	0.748
				Panel B: White Americans			
Age	31.47	2.61	0.103	(0.009)	0.302	2,291	0.734
Years of Education	10.69	1.184	0.249	(0.016)	0.312	2,291	0.747
Share in Labor Force	0.895	0.035	1.508	(0.460)	0.111	2,291	0.720
Share Employed	0.817	0.048	-0.986	(0.400)	-0.085	2,291	0.719
in Manufacturing	0.241	0.125	1.129	(0.161)	0.085	2,291	0.725
in Farming	0.105	0.137	-2.359	(0.135)	-0.261	2,291	0.752
Log Wages	5.573	0.986	0.121	(0.018)	0.130	2,291	0.724
Log Occupation Income Score	3.198	0.139	2.519	(0.120)	0.324	2,291	0.765

Notes: Observations are at the county-race level. Each row is one regression. The outcome variable is the Discrimination Index and the explanatory variables are stated in the row headings. All regressions control for state fixed effects and are weighed by the number of enlistable men of each race in 1940.

Table 3: DDD Estimates: Main Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dependent Variable: Volunteers (per 100,000)
				Baseline			

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mean Dep. Var.			**27.03**			**28.18**	**26.82**
Discrimination x Black x Post	-1.309	-1.309	-1.309	-2.547	-2.334	-2.228	-2.346
	(0.695)	(0.695)	(0.695)	(0.675)	(1.170)	(1.146)	(1.169)
Discrimination x Black	-0.313	-1.418	-1.418				
	(0.421)	(0.574)	(0.574)				
Black x Post	-18.878	-18.878	-18.878				
	(1.320)	(1.320)	(1.320)				
Black	-11.538	-10.401	-10.401				
	(0.706)	(0.832)	(0.832)				
"Passing"** x Black x Post							-45.699
							(114.422)
Controls:							
State FE	Y	N	N	N	N	N	N
County FE	N	Y	Y	N	N	N	N
Week FE	N	N	Y	N	N	N	N
County-Week FE	N	N	N	Y	Y	Y	Y
Race-Week FE	N	N	N	Y	Y	Y	Y
Race-County FE	N	N	N	Y	Y	Y	Y
County-Race Vars* x Week FE	N	N	N	N	Y	Y	Y
Draft Rates (One Week Lag)	N	N	N	N	N	Y	N
Observations	73,312	73,312	73,312	73,312	73,312	68,730	65,632
R-Squared	0.249	0.309	0.413	0.623	0.626	0.617	0.610
PCA 25th percentile				-1.025			-1.007
PCA 75th percentile				0.644			0.644

Notes: Observations are at the race, county and week level. All regressions include lower order interactions, and are weighed by the number of enlistable men of each race in each county and week. *County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. ** "Passing" is the share of Black men in 1930 reported to be white in the linked 1940 census taken from Dahis et al. (2020). Standard errors are clustered at the county level.

Table 4: Robustness

	Baseline								
	Dependent Variable: Volunteers (per 100,000)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mean Dep. Var.	**27.03**	**25.52**	**25.52**	**25.52**	**25.52**	**25.52**	**27.03**	**27.03**	**27.03**
Discrimination x Black x Post	-2.334 (1.170)	-2.555 (1.190)				-2.244 (1.173)	-2.336 (1.169)	-2.291 (1.175)	-2.207 (1.166)
NAACP x Black x Post			5.874 (2.864)			3.644 (3.323)			
Church x Black x Post			-4.866 (13.831)			-6.190 (14.373)			
Dist. Pearl Harbor x Black x Post				-0.002 (0.004)		0.000 (0.004)			
Dist. GER x Black x Post				-0.006 (0.004)		0.001 (0.005)			
Years Union x Black x Post					0.096 (0.050)	0.091 (0.066)			
Black x Post x Peer Effects							-0.088 (0.0670)		
Black x Post x Peer Effects (within states)								0.135 (0.093)	
Black x Post x Peer Effects (across states)									-10.41 (4.358)
Observations	73,312	58,528	58,528	58,528	58,528	58,528	73,312	73,312	73,312
R-Squared	0.626	0.590	0.590	0.590	0.590	0.590	0.626	0.626	0.626

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, county-race fixed effects, and interactions between county-race variables and week dummies. County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. Regressions are weighed by the number of enlistable men of each race in each county and week. Standard errors are clustered at the county level.

Table 5: Veterans

	Dependent Variable: Volunteers (per 100,000)				
	Baseline				
	(1)	(2)	(3)	(4)	(5)
Mean Dep. Var	**27.03**	**26.99**	**26.99**	**26.99**	**26.99**
Discrimination x Black x Post	-2.334			-2.369	-2.431
	(1.170)			(1.172)	(1.163)
Share of Black WWI Veterans x Black x Post		0.306		10.976	
		(33.212)		(32.400)	
Share Living with Black WWI Veteran x Black x Post		3.964		-10.058	
		(31.107)		(30.631)	
Share Living with Black WWI Veteran head x Black x Post			45.602		51.399
			(53.026)		(53.641)
Share Living with Black WWI Veteran non-head x Black x Post			-28.772		-43.288
			(39.413)		(38.838)
Observations	73,312	71,424	71,424	71,424	71,424
R-Squared	0.626	0.622	0.622	0.622	0.622

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, county-race fixed effects, and interactions between county-race variables and week dummies. County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. Regressions are weighed by the number of enlistable men of each race in each county and week. Standard errors are clustered at the county level.

Table 6: Heterogeneity

Dependent Variable: Volunteers (per 100,000)

Panel A.

	Non-Southern States	NAACP - Not present	Church	Distance Pearl Harbor	Distance Germany	Year in Union	Veteran HH Head	Peer Effects
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Below Median			
Mean Dep. Var	28.73	27.57	28.79	31.40	26.56	33.25	24.56	19.62
Discrimination x Black x Post [1]	-1.673	-2.042	-2.600	1.322	-5.125	-1.794	-1.145	-1.678
	(2.560)	(1.293)	(2.989)	(1.491)	(1.777)	(1.696)	(1.720)	(1.986)
Observations	34,560	66,816	27,456	28,864	37,792	29,616	33,984	39,696
R-Squared	0.586	0.555	0.540	0.700	0.590	0.676	0.391	0.408

Panel B.

	Non-Southern States	NAACP - Not present	Church	Distance Pearl Harbor	Distance Germany	Year in Union	Veteran HH Head	Peer Effects
					Above Median			
Mean Dep. Var	23.17	25.39	22.99	25.06	28.10	23.17	27.70	32.48
Discrimination x Black x Post [2]	-1.463	-1.643	-2.306	-2.727	-0.801	-1.710	-2.599	-1.493
	(1.358)	(2.811)	(1.245)	(1.352)	(1.485)	(1.477)	(1.411)	(1.279)
Observations	38,784	6,528	33,344	44,096	35,168	41,776	37,440	33,550
R-Squared	0.693	0.870	0.691	0.566	0.667	0.527	0.734	0.710
[1] – [2] p-value	0.956	0.975	0.928	0.035	0.089	0.969	0.515	0.906

Notes: Observations are at the race, county and week level. The sample is divided according to the variables stated in the column headings. All regressions include county-week fixed effects, race-week fixed effects and county-race fixed effects, and interactions between county-race variables and week fixed effects. County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. Regressions are weighed by the number of enlistable men of each race in each county and week. Standard errors are clustered at the county level. The p-value for the difference between the coefficients shown in Panels A and B are at the bottom of the table.

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Appendix

A Additional Figures and Tables

Figure A.1: Black Volunteers
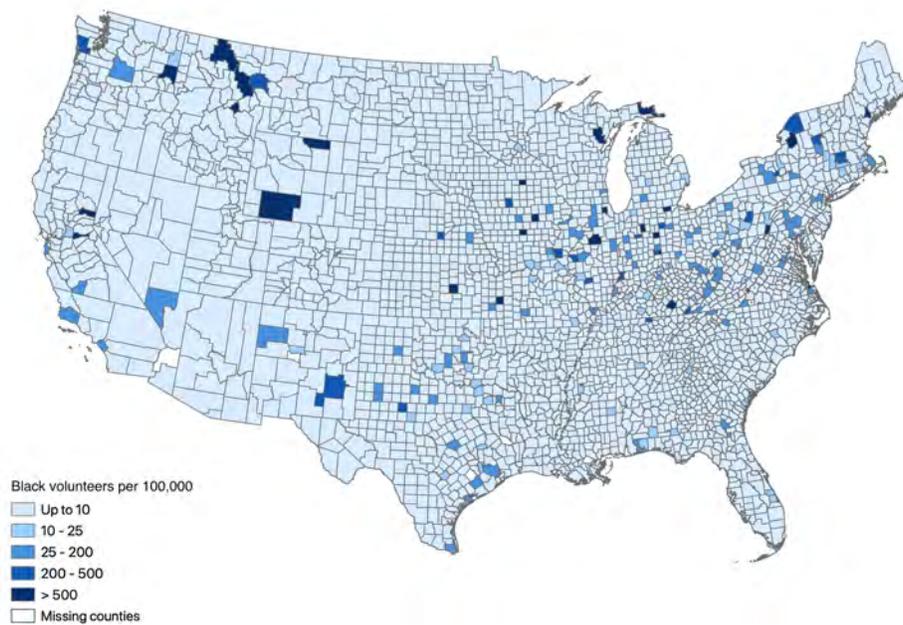
Notes: The map shows the distribution of the Black volunteer enlistment rate per 100,000 enlistable individuals, for the 8 weeks subsequent the Pearl Harbor attack.

Figure A.2: White Volunteers

White volunteers per 100,000
- Up to 10
- 10 - 20
- 20 - 50
- 50 - 70
- > 70
- Missing counties
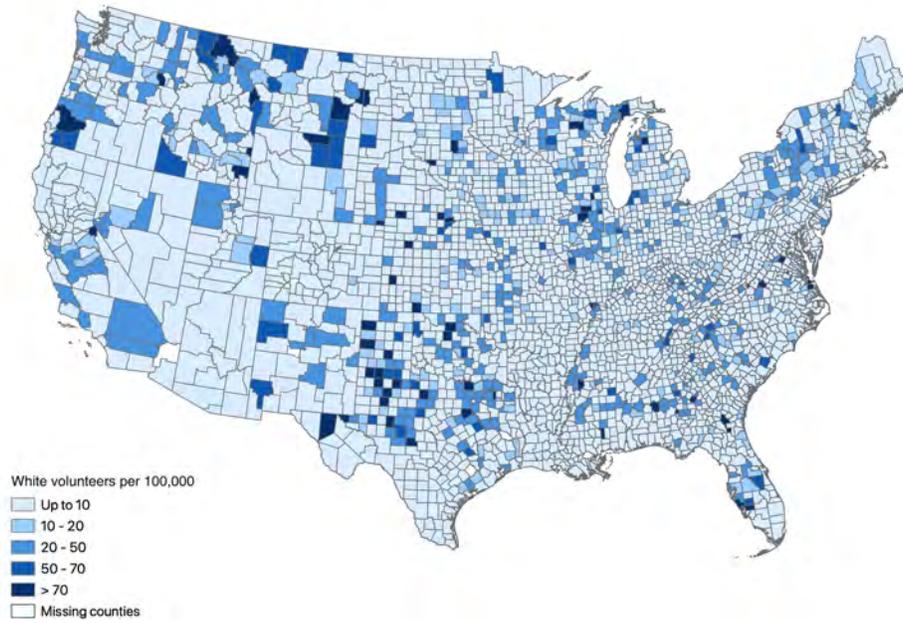
Notes: The map shows the distribution of the white volunteer enlistment rate per 100,000 enlistable individuals, for the 8 weeks after the Pearl Harbor attack.

Table A.1: Variables Description, County variables

Variable	Description	Source
Black Population Share	Black share of county population	Authors' calculation from 1940 Census Haines et al. (2010)
White Population Share	White share of county population	Authors' calculation from 1940 Census Haines et al. (2010)
German (Ancestry) Population Share	German share of the county population	Authors' calculation from 1940 Census Ruggles et al. (2020)
Italian (Ancestry) Population Share	Italian share of the county population	Authors' calculation from 1940 Census Ruggles et al. (2020)
Japanese (Ancestry) Population Share	Japanese share of the county population	Authors' calculation from 1940 Census Ruggles et al. (2020)
Log Population Density	Log of the population density	Authors' calculation from 1940 Census Ruggles et al. (2020)
WWII Spending per capita	Government spending per capita for WWII, measured over the entire WWII period, in 1,000 Dollars	County and City Data Books (ICPSR Study 7735)
New Deal Agricultural grants per capita	Per capita amount of New Deal relief loans and grants provided by the Agricultural Adjustment Administration, the Farm Credit Administration, the Farm Security Administration, and the Rural Electrification Administration, in 1,000 Dollars	Fishback et al. (2003)
New Deal - Other Grants per capita	Per capita amount of New Deal Relief grants and public works grants; loans provided by the Reconstruction Finance Corporation, the Home Owners Loan Corporation, the Farm Housing Administration (insured loans), and the US Housing Administration, in 1,000 Dollars	Fishback et al. (2003)
Distance from Japan (1,000 km)	Distance from Japan (in 1,000 km) from county centroid	Authors' calculation
Distance from Pearl Harbor (1,000 km)	Distance from Pearl Harbor (in 1,000 km) from county centroid	Authors' calculation
Distance from Germany (1,000 km)	Distance from Germany (in 1,000 km) from county centroid	Authors' calculation

Table A.2: Variables Description, County-Race variables

Variable	Description	Source
Volunteers (100,000)	Volunteers per 100,000 individuals eligible to serve in the county-week	World War II Army Enlistment Records (NARA-AAD), 1938-1951
Draftees (100,000)	Draftees per 100,000 individuals eligible to serve in the county-week	World War II Army Enlistment Records (NARA-AAD), 1938-1951
Net Migration rate '30-'40	1930-1940 net migration rate in %	Authors' calculation from 1940 Census Ruggles et al. (2020)
Log Population Density	Log of the county population	Authors' calculation from 1940 Census Ruggles et al. (2020)
Age	Average age	Authors' calculation from 1940 Census Ruggles et al. (2020)
Years of Education	Average years of education for individuals who are no longer in school	Authors' calculation from 1940 Census Ruggles et al. (2020)
Share in Labor Force	Share of individuals in the labor force, restricting to men 18-65 years old	Authors' calculation from 1940 Census Ruggles et al. (2020)
Share Employed	Share of employed individuals, restricting to men 18-65 years old	Authors' calculation from 1940 Census Ruggles et al. (2020)
in Manufacturing	Share of individuals employed in manufacturing, restricting to men 18-65 years old who report a gainful occupation	Authors' calculation from 1940 Census Ruggles et al. (2020)
in Farming	Share of individuals employed as farmers, restricting to men 18-65 years old who report a gainful occupation	Authors' calculation from 1940 Census Ruggles et al. (2020)
Log Wages	Average log wages for men 18-65 years old	Authors' calculation from 1940 Census Ruggles et al. (2020)
Log Occupation Income Score	Log average occupational income score for men 18-65 years old who report a gainful occupation	Authors' calculation from 1940 Census Ruggles et al. (2020)
Share of Black Church Members	Number of members of Black churches relative to county population in 1936	Census of Religious Bodies
Presence of NAACP Chapter	Presence of NAACP Chapter in the county between 1919 and 1940	Gregory and Estrada (2019)
Black WWI Veterans as a Share of Eligible Men	Share of WWI Black veterans relative to the number of Black men in the county eligible to serve during WWI according to their age as of 1930. See Appendix B for more details	Authors' calculation from the 1930 U.S. Census of Population Ruggles et al. (2020)
Share of WWII Eligible Black Men Living with WWI Vet	Share of Black individuals eligible to serve in WWII, according to their age in 1930, who were living in a household with a WWI Black veteran. See Appendix B for more details	Authors' calculation from the 1930 U.S. Census of Population Ruggles et al. (2020)
Veteran is Household Head	Share of Black individuals eligible to serve in WWII, according to their age in 1930, who were living with a WWI Black veteran in 1930, who was the household head. See Appendix B for more details	Authors' calculation from the 1930 U.S. Census of Population Ruggles et al. (2020)
Veteran is not Household Head	Share of Black individuals eligible to serve in WWII, according to their age in 1930, who were living with a WWI Black veteran in 1930, who was not the household head. See Appendix B for more details	Authors' calculation from the 1930 U.S. Census of Population Ruggles et al. (2020)

Table A.3: Summary Statistics - Individual Level

	All Counties			High Discrimination			Low Discrimination		
	Mean (1)	St. Dev (2)	Obs (3)	Mean (4)	St. Dev (5)	Obs (6)	Mean (7)	St. Dev (8)	Obs (9)
Panel A. Full Sample									
Volunteers	0.414	0.493	267,190	0.390	0.488	132,431	0.437	0.496	134,759
Draftees	0.586	0.493	267,190	0.610	0.488	132,431	0.563	0.496	134,759
Black Men	0.060	0.237	267,190	0.096	0.294	132,431	0.024	0.153	134,759
White Men	0.940	0.237	267,190	0.904	0.294	132,431	0.976	0.153	134,759
At Least High School Degree	0.523	0.499	267,190	0.494	0.500	132,431	0.551	0.497	134,759
In Agriculture	0.082	0.274	267,190	0.092	0.289	132,431	0.072	0.259	134,759
In Manufacturing	0.558	0.497	267,190	0.518	0.500	132,431	0.598	0.490	134,759
In Service and Clerical Occupations	0.228	0.420	267,190	0.253	0.435	132,431	0.204	0.403	134,759
At Least Some High School	0.787	0.409	267,190	0.770	0.421	132,431	0.804	0.397	134,759
In Private Grade	0.939	0.240	267,190	0.933	0.250	132,431	0.944	0.229	134,759
Age	23.62	3.094	267,089	23.64	3.103	132,383	23.6	3.085	134,706
Panel B. Black Men									
Volunteers	0.125	0.331	15,934	0.118	0.322	12,699	0.153	0.360	3,235
Draftees	0.875	0.331	15,934	0.882	0.322	12,699	0.847	0.360	3,235
At Least High School Degree	0.215	0.411	15,934	0.197	0.398	12,699	0.287	0.452	3,235
In Agriculture	0.121	0.326	15,934	0.144	0.351	12,699	0.033	0.179	3,235
In Manufacturing	0.597	0.491	15,934	0.575	0.494	12,699	0.682	0.466	3,235
In Service and Clerical Occupations	0.230	0.421	15,934	0.230	0.421	12,699	0.231	0.421	3,235
At Least Some High School	0.515	0.500	15,934	0.482	0.500	12,699	0.644	0.479	3,235
In Private Grade	0.989	0.105	15,934	0.988	0.108	12,699	0.991	0.096	3,235
Age	23.64	3.015	15,926	23.57	3.024	12,691	23.91	2.963	3,235
Panel C. White Men									
Volunteers	0.432	0.495	251,256	0.419	0.493	119,732	0.444	0.497	131,524
Draftees	0.568	0.495	251,256	0.581	0.493	119,732	0.556	0.497	131,524
At Least High School Degree	0.542	0.498	251,256	0.526	0.499	119,732	0.558	0.497	131,524
In Agriculture	0.080	0.271	251,256	0.087	0.281	119,732	0.073	0.260	131,524
In Manufacturing	0.556	0.497	251,256	0.511	0.500	119,732	0.596	0.491	131,524
In Service and Clerical Occupations	0.228	0.420	251,256	0.256	0.436	119,732	0.203	0.402	131,524
At Least Some High School	0.804	0.397	251,256	0.800	0.400	119,732	0.808	0.394	131,524
In Private Grade	0.935	0.246	251,256	0.927	0.260	119,732	0.943	0.231	131,524
Age	23.62	3.099	251,253	23.65	3.111	119,692	23.59	3.088	131,471

Notes: Observations are at the individual level. High and low discrimination are defined to be if counties are above or below the sample median of the Discrimination Index. The statistics are calculated on the sample considered in column (5) of Table 3.

Table A.4: Discrimination Index Description

Variable Name	Source	Construction
Dissimilarity Index 1940	Logan and Parman (2017)	Dissimilarity index at the county level constructed by Logan and Parman (2017).
Isolation Index 1940	Logan and Parman (2017)	Isolation index at the county level constructed by Logan and Parman (2017).
Presence of KKK	Kneebone and Torres (2015)	Dummy for presence of KKK klavern in the county in any year between 1915 and 1940.
Number of Lynching cases up to 1939	Monroe Work Today (MWT)	Total number of lynching episodes in a county against Black Americans between 1803 and 1939.
Congress Vote Share Democrat 1900-1930	Clubb et al. (1990)	Democratic vote share in Congressional elections at the county level, for each election between 1900 and 1930.
President Vote Share Democrat 1900-1930	Clubb et al. (1990)	Democratic vote share in Presidential elections at the county level, for each election between 1900 and 1928.

Table A.5: DDD Estimates: Different Clustering

	Dependent Variable: Volunteers (per 100,000)			
	Baseline (1)	(2)	(3)	(4)
Mean Dep. Var.		27.03		
Discrimination x Black x Post	-2.334 (1.170)	-2.334 (1.233)	-2.334 (1.214)	-2.334 (1.232)
Cluster	County	Commuting Zone	County	County
Conley Adjustment	N	N	Y	Y
Observations	73,312	73,312	73,312	73,312
R-Squared	0.626	0.626	0.626	0.626

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, county-race fixed effects, and interactions between county-race variables and week dummies. County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. Regressions are weighed by the number of enlistable men of each race in each county and week. Standard errors are clustered at the county level in columns (1), (3), and (4), and at the commuting zone in column (2). Columns (3) and (4) adjust for spatial correlation considering a 16-week lag period and a distance cutoff of 2,000 km in column (3) and 3,000 km in column (4).

Table A.6: Discrimination Components

	Dependent Variable: Volunteers (per 100,000)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dep. variable mean				27.03			
Black x Post x Dissimilarity Index 1940	-12.156 (6.498)						0.264 (14.566)
Black x Post x Isolation Index 1940		-10.839 (4.832)					-10.985 (10.454)
Black x Post x Presence of KKK			-7.382 (2.234)				-5.343 (2.059)
Black x Post x Number of Lynching up to 1939				-0.122 (0.233)			0.073 (0.224)
Black x Post x Congress Vote Share Democrat 1900-1930					-0.194 (0.067)		-0.239 (0.110)
Black x Post x President Vote Share Democrat 1900-1930						-0.15 (0.089)	0.026 (0.150)
Observations	73,312	73,312	73,312	73,312	73,312	73,312	73,312
R-Squared	0.626	0.626	0.626	0.625	0.626	0.625	0.626

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, county-race fixed effects, and interactions between county-race variables and week dummies. County-race variables are measured in 1940 and include: log population, share in the labor force, share employed, share employed in manufacturing, share employed in agriculture, years of education, age, log wages, log occupational score, share of farmers, draft enlistment per 100,000 eligible, and the net 1930-1940 migration rate. Regressions are weighed by the number of enlistable men of each race in each county and week. Standard errors are clustered at the county level.

B WWI Veterans

As discussed in the paper, we construct different proxies for the presence of Black WWI veterans – both in the county and in the household. To compute these variables we rely on the 1930 U.S. Census (rather than on the 1940 one), because only in this year WWI veteran status was asked.[48] Similar to Mazumder (2019), we proceed in steps. First, we calculate, for each Black man in the U.S. Census of 1930, his age in 1917. We then count the number of Black men according to two eligibility groups: (1) age 21-31 in 1917, and (2) age 18-45 in 1917.[49] Second, we count the number of WWI Black veterans by county. We generate the share of WWI Black veterans in 1930 by scaling the number of veterans by the number of "enlistable" individuals, according to both eligibility criteria (i.e. 21-31 and 18-45). We use the wider (18-45) age range eligibility criterion, but results are similar when using the more stringent (21-31) one. We also construct the share of Black men who, given their age in 1930, would have been eligible to serve in WWII and were living in a household with a WWI veteran. In addition, we split the latter variable for individuals who were living with a WWI veteran who was household head and who was not the household head, respectively.

Note that our proxy for WWI Black veterans is built under the assumption that Black individuals living in a given county in 1930 were still residing in that same county at the time of the Pearl Harbor attack. While this assumption may not hold in practice, Blacks' geographic mobility should add noise to our results, unless it was systematically correlated with both WWI veteran shares and patterns of Blacks' volunteering behavior during WWII – something that seems unlikely to us.

C Other Races after Pearl Harbor

Minority groups in the United States faced varying degrees of discrimination. Figure C.1 plots volunteer enlistment rates for all races that our data allow us to identify

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[48]The 1940 Census asked a generic question about veteran status without, however, specifying the conflict.

[49]The choice of these two eligibility groups is motivated by the draft requirements. The first draft (June 5, 1917) included all men between the ages of 21 and 30. The second draft (June 5, 1918) registered men who attained age 21 after June 5, 1917. A supplemental registration, included in the second registration, was held on August 24, 1918, for men turning 21 after June 5, 1918. Finally, a third registration was held on September 12, 1918, for men age 18 through 45. See Mazumder (2019) and Campante and Yanagizawa-Drott (2018) for more details on the WWI draft.

– white, Black, Native American, Japanese, and Chinese – during the eight weeks before and the eight weeks after the Pearl Harbor attack.[50] It shows that enlistment rates were similar between Native American, Japanese American and white American men. They were lower for Chinese men, and the lowest for Black men. As we discuss below, this is broadly consistent with the incentives faced by each group.

The U.S. government had a long history of discriminatory and often violent policies against Native Americans. By the eve of WWII, 92% of Native Americans lived in rural areas – most of them in reservations, where conditions and opportunities were much poorer than in other parts of the country.[51] Native Americans had lower outside opportunities than white Americans, with median income of the former being only 25% of that of the latter (Sorkin, 1974). At the same time, there were few formal discriminatory policies against Native Americans outside reservations. The U.S. military treated Native American men similarly to white men, and the image of Native American soldiers was very popular across the country (Bernstein, 1986). Military service during WWII might have thus offered to Native Americans the opportunity to achieve a more equal status relative to white men.

Chinese Americans faced significant discrimination too. The Chinese Exclusion Act (1882) was the first immigration law that excluded an entire ethnic group from the United States (Abramitzky and Boustan, 2017). The Scott Act (1888) further prohibited reentry in the country of U.S. citizens who were ethnically Chinese. The National Origins Act of 1924 effectively banned all Asian immigration.[52] These restrictions were in place throughout WWII. In addition to these national laws, local racist efforts to limit U.S. citizens and civil rights of Asian Americans were widespread.[53] During WWII, Chinese and Japanese Americans served in segregated units. However, since the attack was conducted by Japan, some Japanese Americans may have felt that volunteering was a proof of loyalty, or as a way to signal their American identity.[54] The segregation of Chinese soldiers was not as extreme as that for Black

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[50]For consistency, we use the same sample as in Section 4: the 48 mainland states.

[51]No precise figure on the share of Native Americans living in reservations around 1940 is available. We thus take the share of individuals in rural areas as a (admittedly crude) proxy for the share of Native Americans living in reservations.

[52]Japanese immigration was restricted in 1908 with the introduction of the Gentleman's Agreement (Abramitzky and Boustan, 2017).
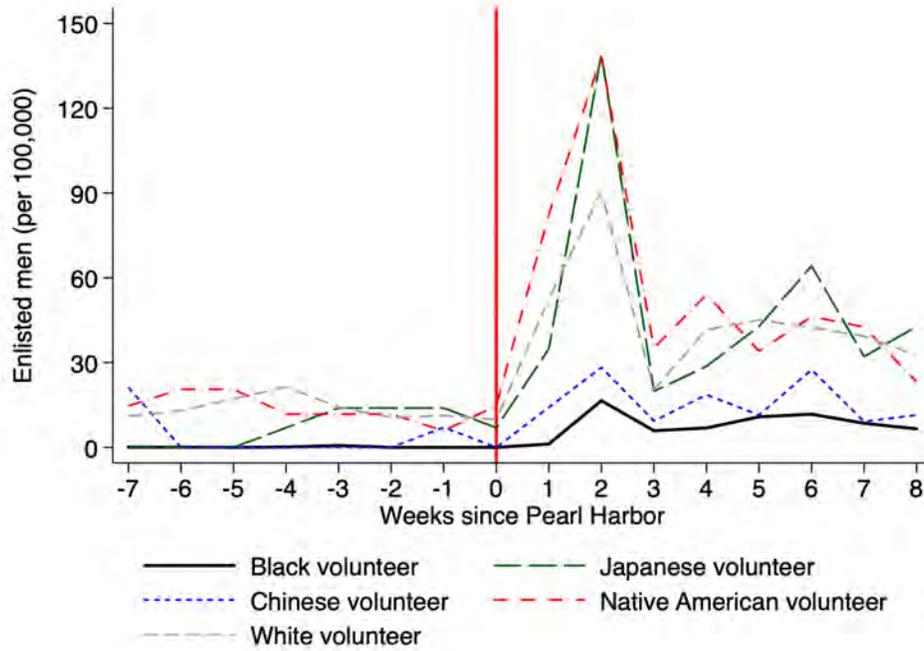
[53]See Soennichsen (2011) for a detailed discussion.

[54]For instance, Saavedra (2018) shows that Japanese-Americans born right after Pearl Harbor had more American sounding names, relative to kids born just a few days before, as Japanese-American parents responded to concerns about heightened anti-Japanese sentiments. Also, note that the ban

soldiers or Japanese soldiers. For example, as many as 75% of Chinese Americans served with white units, whereas all Black and Japanese American men served in separate units.[55]

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of Japanese-Americans from the military and forced internment discussed in the previous section had not yet taken place.

[55]See, for instance, the discussion available from the U.S. Department of Defense at *https://web.archive.org/web/20070615091238/http://www.defenselink.mil/news/newsarticle.aspx?id=16498*.

Figure C.1: Volunteer Enlistment, All Ethnic Groups

Notes: The y-axis reports the rate of enlisted volunteers per 100,000 enlistable individuals (by race and week). The x-axis reports the week since the Pearl Harbor attack (coded as week 0).