Discrimination and State Capacity: Evidence from WWII U.S. Army Enlistment*

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Abstract

This paper investigates the empirical relationship between inclusion and state capacity during wartime. We document that racial discrimination against Black Americans had a large, negative effect on the quantity and quality of Black men who volunteered for the U.S. Army immediately after the attack on Pearl Harbor. We also show evidence consistent with a relationship between discrimination and enlistment rates for Japanese American men, who were also strongly discriminated against during World War II. We interpret the results as evidence that racial discrimination discouraged Black men from enlisting, and provide evidence against alternative explanations.

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1 Introduction

The notion that the threat of war increases the demand for state capacity, which, in turn, leads the state to be more inclusive, is a widely held view in political science (Jha and Wilkinson, 2012; Scheve and Stasavage, 2010; Ticchi and Vindigni, 2008) which draws on classic theses of the social contract (Hobbes, 1651; Locke, 1690). Recent political economy studies of state capacity by Besley and Persson (2009) and Besley and Persson (2010) emphasize these theories and formalize the complementarity between inclusive institutions and state capacity. Despite the wide acceptance of these ideas, there is little systematic evidence on the impact of inclusion on state capacity.

The primary aim of this study is to make progress on this important agenda by providing rigorous empirical evidence on the effect of discrimination on military capacity during wartime. Our main outcome of interest is volunteer enlistment rates, which capture the supply and motivation of soldiers (Alesina et al., 2020; Levi et al., 1997). The ability of a state to wage war critically depends on the motivation of its citizens to enlist as volunteers as well as conscripts (Levi et al., 1997).[1]

Specifically, we examine the effect of the political and social exclusion perpetuated by racial discrimination on U.S. Black volunteer military enlistment at the onset of World War II. The effect of discrimination is *ex ante* ambiguous. On the one hand, discrimination may *discourage* Black men from volunteering. On the other hand, it may prompt higher volunteer rates if military service is viewed as a way for the Black community to *signal* the value of Black citizens and reduce future discrimination.[2] Our analysis will capture the net of positive and negative forces.[3]

U.S. military enlistment during WWII provides an interesting context for understanding the relationship between discrimination and state capacity. The surprise attack by Imperial Japan on Pearl Harbor (December 7, 1941) pushed the U.S. into war and was unrelated to U.S. racial policies and attitudes. Black men, who constituted ten percent of the population eligible for military service, were viewed by the government as critical to the war effort. The outcome of the war was very uncertain at the beginning. The U.S. anticipated needing all of its men and industrial power to succeed in the first attempt to mass mobilize in the nation's

[1] State capacity is traditionally defined as the ability to raise taxes for the purpose of fighting wars (Tilly, 1993). The idea is that larger fiscal revenues affords more fighting capacity (e.g., weapons and soldiers). Thus, using volunteer enlistment rates to measure capacity during war time is conceptually similar. In expanding the empirical measurement of state capacity, we follow the point by Besley and Persson (2009) and Besley and Persson (2010) that the latter is a multi-dimensional object that goes beyond the narrower definition of the ability to raise taxes. See Section 3 for a detailed discussion of how inclusion can affect the motivation of men to fight.

[2] The latter view was common during World War I. See the Background Section.

[3] Discrimination can also induce Black men to enlist by reducing the outside options of Black men relative to the military. Section 3 discusses these and other channels through which discrimination can affect enlistment.

history. WWII occurred during one of the worst periods of U.S. racial discrimination, which was present everywhere in the country. However, substantial geographic variation exists for the empirical analysis. By the end of WWII, a higher share of Black men had enlisted than white men, and their valor was renowned. But at the war's outset, participation was highly controversial within the Black community, where many perceived little difference between the U.S. government and the Axis regimes. In response, the U.S. government enacted a large campaign to recruit Black soldiers in the second half of 1942. We focus on the period before this recruitment campaign to identify the full and unmitigated effect of discrimination, but will discuss the latter parts of the war at the end of the paper to be comprehensive.

To measure discrimination, we use the principal component of the measures of racial discrimination that have emerged in the economic history literature for this period that vary at the county level and are available for all 48 continental states. Our broad measure captures formal, informal, political, and social discrimination experienced by the individual and his community. To minimize confounding changes that occurred after the war began (e.g., wartime industry policies), we examine a narrow window of eight weeks before and eight weeks after Pearl Harbor, which we interpret as a demand shock for soldiers.

The main outcome variable is volunteer enlistment rate – the number of volunteers as a share of eligible men (for each county, race, and week). To construct this measure, we use data from the universe of individual enlistment records from this period. For every man that ever served during WWII, we are able to observe volunteer status, date, rank, county of origin, and many other characteristics. The granularity of the data and the large exogenous demand shock caused by Pearl Harbor allow our empirical analysis to exploit a sharp change and provide many additional results to enrich the main analysis.

Our analysis begins by describing enlistment in the raw data. Black volunteer enlistment increased immediately after the Pearl Harbor attack, but the increase was lower in counties with higher levels of discrimination. Volunteer enlistment for white men, who were not subject to discrimination, increased everywhere after the Pearl Harbor attack. Consistent with the fact that the Black population suffered severe discrimination everywhere, even in counties with *relatively* low levels of discrimination, white enlistment increased more than Black enlistment. The descriptive patterns are consistent with discrimination reducing Black enlistment. However, they cannot be interpreted as causal because of potential omitted variable bias. Discrimination may be correlated with other factors that affect enlistment rates after Pearl Harbor, and the influence may differ for Black and white men.

To estimate the causal impact of discrimination on volunteer enlistment, we estimate a heterogeneous treatment effects specification where we compare enlistment in counties with higher discrimination to that in counties with lower discrimination, before and after Pearl Harbor, between Black and white men. This triple interaction estimate exploits the same

variation as the descriptive analysis. The main advantage for identification is that it allows us to control for a large number of fixed effects. The baseline 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; and county-race fixed effects, which control for time invariant county-race-specific differences.

The main caveat for the causal interpretation of our triple interaction specification is the presence of potential confounders that vary with discrimination, time, and race. For example, access to wartime manufacturing employment after Pearl Harbor was not the same for Black and white men, and this gap may have varied with discrimination.[4] To address this and similar concerns, we calculate county-race specific variables using the 1940 Census and control for each variable interacted with week fixed effects to allow its influence to vary fully flexibly over time. Thus, in addition to the fixed effects, the baseline will control for the following variables interacted with week fixed effects: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. Only the triple interaction coefficient is interpreted as plausibly exogenous. Our causal interpretation assumes that conditional on the baseline controls, the interaction is not correlated with omitted variables that influence Black enlistment rates.

The baseline estimates show that discrimination reduces Black volunteer enlistment. Thus, in our context, discouragement dominates signaling. The magnitude of the effect is large. The rise in Black volunteer enlistment during the eight weeks after Pearl Harbor was 88% higher in a county at the 25th percentile of the discrimination measure in comparison to a county at the 75th percentile.

Our results capture the effect of discrimination in the Army as well as discrimination in society on the supply of Black men. Both can discourage Black men from enlisting. The main alternative interpretation comes from demand-side factors. Historical accounts note that the Army sometimes turned away Black soldiers during the early parts of WWII. Sometimes, this was due to the limited capacity of the Army to house and train Black men (who were segregated from white men). Other times, it was due to discriminatory local Army boards being unwilling to accept Black men (Flynn, 1984). These demand-side effects confound the interpretation if capacity constraints or Army board attitudes were correlated with discrimination and varied after Pearl Harbor. We address this by controlling for race-county-week-specific *draft* enlistment rates. The capacity constraints and local army board attitudes affected volunteers and conscripted men similarly. Thus, including draft enlistment rates controls for demand-side factors. We also provide evidence against the alternative

[4]See, for example, Aizer et al. (2020) and Ferrara (2021) for studies of Black employment during WWII. In a related study, Fishback et al. (2020) document racial differences in access to New Deal work relief.

explanations that our main results are due to differences in the salience or the coverage of the news about Pearl Harbor.

Our results are robust to the inclusion of many other potentially confounding variables. These include the presence of Black organizations (the NAACP, Black churches), distance from Pearl Harbor and Germany, the number of years that the state belonged to the Union, the presence of WWI Black veterans, migration of Black men from high-to-low discrimination counties, radio ownership among Black households, (actual or potential) female labor force participation, and proximity to military bases. We also show that our measure of racial discrimination against the Black population has no effect on the enlistment of other races. We present these and many other exercises after the main results.

Military capacity depends on both the quantity and the quality of volunteers. One of the main metrics of quality used by the Army was educational attainment, which we are able to observe in our data. We find that in areas with high discrimination, Black men who volunteered had a lower average educational attainment. To understand the causes for this, we use data on rank at the time of induction. We document that the returns to education in the Army were lower for Black men, especially in places with higher discrimination. Thus, discrimination lowered the quality of Black volunteers, and this is likely to be partly due to Black men not being rewarded for their skills in the Army. The finding that educated men were more discouraged by discrimination is also consistent with recent findings that political activism is increasing in education (Croke et al., 2016; Larreguy and Marshall, 2017).

After presenting the main results for Black enlistment just before and after the Pearl Harbor attack, we provide two additional descriptive analyses for comprehensiveness: the enlistment patterns of Japanese American when they were allowed to re-enter the Army in 1943 and of Black men in later parts of 1942.

This paper provides novel and rigorous empirical evidence that discrimination reduces military capacity, and therefore, hinders state capacity during wartime. The results show that racial discrimination was an important determinant of the initial reluctance that Black men showed towards volunteering. They highlight a novel means through which discrimination can be socially costly. As such, our findings support the notion that institutional inclusivity is important for state capacity (Besley and Persson, 2009), and that state capacity and the efficacy of public policy may be hindered by group divisions (e.g., Alesina and Spolaore, 2005; Alesina and La Ferrara, 2005). Our study is most closely related to Fouka (2020), which documents that U.S. policies for assimilating ethnic Germans living in the U.S. reduced the motivation of German Americans to join the U.S. military during WWII.

While discrimination reduced U.S. state capacity during WWII, the experience may have contributed to President Truman's decision to desegregate the military in 1948, nearly twenty years before the Civil Rights Act. In this way, our study is related to research arguing

that, in the long run, the threat of war increases the demand for state capacity, which in turn leads to a more inclusive state. For example, Ticchi and Vindigni (2008) shows that, in order to motivate citizens to fight, elites may be willing to extend the franchise in anticipation of future conflicts. Scheve and Stasavage (2010) argues that war mobilization increases demand for redistribution and induces the state to raise taxes on the rich, so as to more evenly distribute the burden of the war across groups in society. Jha and Wilkinson (2012) provides evidence that, in line with Przeworski (2009), democratic transitions might happen at the end of wars as a consequence of the heightened organizational capacity of the non-elites triggered by military conflict. These studies are related to the more general notion that the extension of the franchise can increase political stability in the long run (Acemoglu and Robinson, 2000) and recent empirical studies finding that increased political participation is positively associated with tax contributions in historical Germany (Becker et al., 2019) and the D.R.C. today (Weigel, 2020).[5]

In documenting a negative relationship between racial division and state capacity during wartime, our paper supports the idea that a sense of unity is critical for nation building. In particular, Alesina et al. (2020) examines how elites motivate soldiers during wars, and shows that individuals are more willing to exert effort if they believe that a defeat would reduce national public goods and services. Recent papers have provided evidence on the determinants of national identity in the context of football victories in sub-Saharan Africa (Depetris-Chauvin et al., 2020), compulsory schooling for immigrants in the United States (Bandiera et al., 2019), and Islamic schools in Indonesia (Bazzi et al., 2020).

We also complement the large literature on the causes and consequences of racial discrimination in the U.S. (Ang, 2020; Bayer and Charles, 2018; Chetty et al., 2020; Cook et al., 2022; Derenoncourt, 2022; Esposito et al., 2021) by documenting the effects of discrimination on one specific margin: the decision to enlist during wartime.[6]

The paper is organized as follows. Section 2 discusses the historical background. Section 3 discusses how discrimination can influence volunteer military enlistment. Section 4 describes the data. Section 5 presents the empirical strategy and the main results. Section 6 presents additional findings. Section 7 concludes.

2 Background

2.1 WWII and Pearl Harbor

Prior to the attack on Pearl Harbor, most Americans perceived World War II as a distant

[5] Becker et al. (2019) uses historical German data to document that exposure to conflict increased political participation, which subsequently increased citizens' consent for taxation. In the D.R.C., Weigel (2020) finds an increase in citizens' demand for participation in government as a response to having to pay taxes.

[6] See Becker (2010) for an overview of the literature.

and foreign conflict about abstract values such as democracy and Fascism. The United States was pushed into the war when Imperial Japan conducted a surprise military strike against the U.S. naval base at Pearl Harbor in Honolulu, Hawaii, at 7:48AM on Sunday, December 7, 1941. 2,403 Americans were killed and 1,178 others were wounded. Over 180 U.S. aircraft were destroyed along with other physical military capital. The attack happened without a declaration of war amidst ongoing peace negotiations. Japan declared war on the United States later on December 7, and the U.S. formally entered WWII when Congress declared war the following day.[7] Japan 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 among Americans. Pearl Harbor was the only major attack on U.S. territory during the entire war.

The outcome of the war was highly uncertain at the onset. The American ability to command national resources for a large-scale international war in foreign territories was untested. Many military strategists doubted America's ability to coordinate its population and economy for total warfare.[8] At the time of Pearl Harbor, the Axis powers were winning both in Europe and in Asia. Germany was expected by many to win the Battle of Britain. It already controlled Western Europe, and Operation Barbarossa on the Eastern Front was an astounding success. Japan had similar success in Asia and the Pacific. Important future turning points for the war such as the Battle of Stalingrad (ended in February 1943) and the Battle of Midway (fought in June 1942) were not foreseen within the early period of the war that we study.

The U.S. entered the war with the expectation of needing to fully mobilize its economy and manpower for a long and drawn-out total war, much like the United Kingdom. Motivating Black men, who constituted ten percent of the total number of eligible men, was seen by the governments of the United States and its allies as critical to the success of the war effort.[9]

The perceived necessity of Black men at the beginning of the war is important to keep in mind for interpreting our results on Black volunteer enlistment as affecting U.S. state capacity during the war.

2.2 Military Enlistment

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

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

[8] For example, see the discussion in Jowett (2002).

[9] For example, Winston Churchill expressed concerns that the U.S. government was not able to fully utilize the fighting capacity of its Black population for the war (Reid and Manchester, 2012). See also Daniels (2019).

There are several key facts about volunteer enlistment to keep in mind for interpreting our results. First, there were almost no changes in the operations of Army recruitment or eligibility criteria within the narrow window that we examine. The only change was the expansion of the age range of eligible men, which we take into account in the empirical analysis.[10]

Volunteers and conscripts were accepted into the military based on similar criteria (e.g., a health test).[11] Once inducted, an enlisted man's occupation in the military depended on factors such as education and occupation prior to enlistment, as well as race. Important for our empirical strategy is the fact that military assignment did not depend on whether the man volunteered or was conscripted; nor did it depend on the county of residence, which in our study and data, refers to the county where a man registered for selective service in 1940.[12] Indeed, the share of Black men who were inducted as privates (98.9%) within our sample period was almost identical between volunteers and conscripts. Military wage compensation did not vary by race within grade, rank, years of service and factors such as having a specialist rating (Bartholomew, 1976).[13]

Finally, unlike WWI, the enlistment process was officially "race blind".[14] However, this was difficult to enforce in practice. Enlistment of both volunteers and conscripts (the draft) were implemented by over 6,000 local boards, whose members were chosen from the local community.[15] During the early part of the war that we study, discriminatory Army boards resisted Black enlistment (Flynn, 1984, 1993).[16] Black men were often rejected during pre-induction health examinations. Some of these were legitimate, while many others were excuses for discriminatory boards to avoid Black enlistees.[17]

[10]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.

[11]The most common individual characteristics considered by local boards for deferrals or exemptions are marital status, fatherhood, farm status, or German, Asian, and Italian ancestry (Acemoglu et al., 2004; Aizer et al., 2020; Ferrara, 2021).

[12]There is evidence that volunteers had some degree of discretion in choosing between branches in the U.S. military (Ferrara, 2021; Flynn, 1993). But there was no discretion for occupations or assignments within the Army, with very few exceptions.

[13]Wage discrimination against Black enlistees occurred by assigning Black men with a similar qualifications as white enlistees to lower grade and rank, and making it more difficult to qualify for specialist ratings.

[14]During WWI, there were race-specific quotas, which were abolished before our study period. See Murray (1971) for a comparison of Black enlistment in the two World Wars.

[15]Only 1.1% of local board members were Black Americans, and only three Southern states had any Black officials. See Davis (1955), Table 1, page 34.

[16]During later parts of the war, when the draft had expanded, discriminatory boards were known to have been more generous in exemptions to white men (Murray, 1971).

[17]The high rejection rates for health reasons in Georgia resulted in Selective Service officials complaining

Another reason for turning Black men away was that many Army bases lacked the physical capacity for housing and training Black men. Since the Army was segregated and there had been very few Black soldiers prior to Pearl Harbor, many bases were unable to absorb Black enlistees right after the surprise attack. Southern generals were also known to have argued that Black men would reduce the morale and efficacy of white men (Osur and Force, 2000). This view is likely to have been shared by discriminatory Army boards.

It is important to keep these facts in mind when interpreting the empirical results. Also important is the fact that Army boards had control over both volunteers and conscripts, even though the latter were nominally drafted through a national process (Murray, 1971). Similarly, limited physical Army facilities, as well as the concern about white Army morale, affected volunteers and conscripts in the same way. We discuss this point in more detail when we consider alternative mechanisms after the main results.

During the period of our study, the majority of Black men were assigned to non-combat positions. These positions included both skilled (e.g., nurses, physicians, dentists) and unskilled (e.g., porters). As in all wars, logistics and support positions are essential for military functions. During WWII, approximately 51% of all enlistees were assigned to such positions.[18]

That few Black men were ultimately assigned to combat positions does not mean that those who enlisted at the beginning of the war anticipated lower risk when volunteering. Throughout the war, there was great uncertainty about the future of Black combat troops caused by the widely diverging opinions among the nation's leaders and the war situation. The ambivalence created several back-and-forths in policy between those who opposed Black combat troops and those promoting greater inclusion (which experienced several big pushes, but had limited success in the end).[19] The number of Black combatants also depended on the conditions of the war. As American involvement escalated, more Black troops were deployed for combat.[20]

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

Race relations within the U.S. military mirrored those of the nation, which we discuss

that "The rejection rate is exceedingly high and it is very difficult for Georgia to fill calls for Negroes–they simply don't want them" (Lee, 1966). The most frequent cause for Black rejection was "mental deficiency", i.e., the label for failing the literacy requirement (being able to write at the 4th grade level). Historians have argued that the literacy standard was adopted mainly to reduce Black enlistment (e.g., Dalfiume, 1969). The AGCT test adopted in 1943 faced similar criticism.

[18] See McGrath (2007), Figure 52.

[19] For example, the U.S. Air Corps started training Black men at the Tuskegee Army Air Field in 1940. A total of 14,000 men (including support staff) were trained. The "Tuskegee Airmen" was first deployed in April 1942 in North Africa and flew its last combat mission in April 1945 (Moye, 2010).

[20] The 92nd Infantry Division (the "Buffalo Soldiers") was the first to be sent into combat in 1944. The 761st Tank Battalion (the "Black Panthers") was first deployed at the end of 1944. Other Black tank battalions were deployed in 1945.

in the next section and in Appendix A. Black and white soldiers were segregated until 1948. During WWII, they had separate canteens, barracks, nurses, and even blood banks. Black soldiers served under Black or white officers. White soldiers only served under white officers.[21]

2.3 Contemporary Discussions about Black Involvement in WWII

The U.S. entered WWII during the peak of the Jim Crow era. Black men had very limited civil and political liberties, due to both formal and informal discrimination. Discrimination severely restricted their political, economic, and social opportunities relative to the white population in all parts of the United States. For interpreting our results, it is important to note that Black workers benefited very little from war industries relative to white workers, especially during the early part of the war that we study (Davis, 1955). See Appendix A for a more detailed discussion.

When WWII erupted, a heated debate emerged within the Black community. On the one hand, there were those who viewed military service as a hard-earned right. Similarly, many hoped that military service would be an effective way to demonstrate the value of Black citizens to the United States, and that this would lead to a reduction in future discrimination. These were the views that had led approximately 350,000 Black men to enlist during WWI.[22] On the other hand, there was much disappointment with the lack of social progress following WWI. Based on what was known at the time, the discriminatory policies of the U.S. seemed little better than those prevailing in the Axis powers.[23] Soon after Pearl Harbor, in a poignant (and later famous) letter to the *Pittsburgh Courier* on January 31, 1942, a 26-year-old Black man, James G. Thompson, 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?"

Partly in response to the low Black enlistment rates prevailing at the beginning of the

[21] For a detailed description of race relations and Black enlistment in WWII see Lee (1966) and Flynn (1984).

[22] See, for example, Astor (2001) and Moore (2005).

[23] The worst atrocities such as those of the Holocaust and Camp 731 in Manchuria were not yet known. 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?"

war, the U.S. government embarked on an extensive recruitment campaign starting in the Spring of 1942. The campaign was not one decisive change, but rather a series of efforts from different parts of the military and government. Some also pushed for better treatment within the U.S. military, with limited success. Nevertheless, the Black community invested in increasing enlistment with efforts such as the Double V campaign. 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. We return to this point in Section 6.

To isolate the impact of discrimination and avoid the possibly confounding influences of the later propaganda efforts and events (e.g., victory at the Battle of Midway), we focus on a short time window before the onset of recruiting efforts. Restricting our attention to the two months after the attack on Pearl Harbor also makes it less likely that our estimates are confounded by changes in war-related economic production or military recruitment. We discuss these issues in more detail when we present the empirical strategy.

3 Discrimination and Black Enlistment

To understand volunteer enlistment during the initial stages of WWII, we follow the seminal work on state capacity during wartime by Levi et al. (1997). According to this framework, the government demands voluntary contributions at the beginning of war and citizens decide how much to contribute.[24] Discrimination might influence the motivation of Black men to volunteer through several channels; and the effects could be positive or negative.

First, Levi et al. (1997) argues that volunteer rates will be high among the citizens who have the greatest economic gains from joining. Economic value refers to both public and private goods. The effect of discrimination on enlistment through this channel is ambiguous *ex ante*. Winning the war (i.e., the continuation of the regime) is a national public good. Discrimination may lower its value for Black men, who had access to less and lower quality schooling, police protection, and other public goods, and who were effectively disenfranchised. However, discrimination can also increase volunteer enlistment if Black men viewed military service as a way to lower future discrimination (and thus increase the value of the public good).

The effect of discrimination through private economic gains is ambiguous for similar reasons. In addition, discrimination can affect the the value of the outside option and thus influence the enlistment decision. All else equal, discrimination at large reduces the outside option and will induce a man to join the Army. But, a man who has experienced more discrimination may expect worse treatment than a man who has experienced relatively less

[24] In the second stage of war, if citizens do not provide enough voluntary contributions, the government introduces legal requirements (i.e., a draft), at which point citizens can decide whether to comply or evade.

discrimination, and thus may be less motivated to enlist.

Second, Levi et al. (1997) argues that volunteer rates will be higher for men who believe that others in their group will also volunteer (i.e., peer effects). The effects of discrimination through this channel are ambiguous and depend on whether Black men think that other Black men are more likely to join in order to signal their value to the nation, or less likely to join because of the discouragement effect of discrimination.

Third, Levi et al. (1997) argues that volunteer rates will be high among citizens that have a high degree of trust in the government. Alsan and Wanamaker (2018) documents that historically discriminatory practices in medicine reduced trust of the Black population towards the medical establishment today. A similar logic may apply to trust in the political establishment, suggesting that discrimination will reduce trust and enlistment amongst Black men.

Finally, Levi et al. (1997) posits that volunteer rates will be higher for those who believe in the legitimacy of the regime. Historical evidence indicates that discrimination reduced the legitimacy of the U.S. government in the eyes of the Black community. Thus, discrimination will reduce enlistment through this channel.[25]

Discrimination could affect enlistment through several additional channels. First, it could 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 the white population. 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).[26] Second, the political psychology literature has documented that discrimination reduces a person's sense of self-efficacy, which lowers civic and political engagement (Komisarchik et al., 2021).[27] Thus, discrimination would reduce Black volunteer enlistment to the extent that it is a form of civic engagement.

Our empirical analysis will capture the net of all of the supply-side effects of discrimination. We discuss the alternative of demand-side effects after we present the main baseline estimates.

[25] Levi et al. (1997) also posits that volunteer rates will be higher if the relevant cultural and community organizations sanction the war. We will examine the influence of the presence of organizations such as NAACP and Black Churches later in the paper. Conceptually, the stance of such organizations is likely to be endogenous to other factors, such as trust and the economic value of the war to the Black community.

[26] Related to the idea that discrimination weakens 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 among 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).

[27] On the other hand, discrimination might promote political engagement, as discriminated groups fight for their rights (Oskooii, 2016, 2018).

4 Data

4.1 Enlistment Data

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

As part of the normal procedure, induction sometimes occur after a volunteer applied or after the receipt of a draft "call-up" notice. During the early stages of the war, this was mostly due to the lack of adequate facilities for housing and training, and was similar for volunteers and conscripts.

The main analysis uses a sample that includes Black and white men. Together, they account for more than 93% of all individuals in the enlistment data.

The baseline sample includes 2,257 counties in the 48 mainland states for which our data can be disaggregated to the county level.[28] The sample includes the eight weeks before and the eight weeks after the Pearl Harbor attack. We conduct the analysis at the county-race-week level, because we normalize enlistment by the number of eligible men in each county-race-week cell. All descriptive statistics and regressions presented below are weighed by the number of eligible men.

The main outcome of interest in our analysis is the enlistment rate – the number of volunteers of each race in each county and week for every 100,000 eligible men. We use the 1940 full-count U.S. Census to calculate the number of eligible men. This denominator is adjusted to account for the change in eligible ages on December 20, 1941.[29] The 1940 Census also provides a number of control variables. We discuss these and other data later when relevant. We interpret voluntary enlistment as reflecting motivation to participate in the war.[30]

[28] The counties that lack variation in enlistment rates during the time frame of our analysis are excluded from the sample. Information is not reported from all Army boards from Service Command 7 (Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming). Our results are similar if we omit these states from the analysis. See Appendix D.2.

[29] See Section 2.

[30] Army personnel (discharge) records provide an alternative measure of motivation and performance. Unfortunately, most service records from this period were destroyed in a fire. Data on medals and awards

Table 1 presents the summary statistics for selected county characteristics.[31] In 1940, 9.9% of the population in our sample was Black and 89.6% was white. The average share of the population with ancestry from Germany, Italy, and Japan (the Axis powers) was 1.7%, 3.2%, and 0.04%. On average, the urban population share was 63.9%, and approximately half of the county area was farmland. During the eight weeks after Pearl Harbor, an average of 8.64 Black men (per 100,000 eligible individuals) volunteered. This number is more than four times smaller in the South (4.86) than in the rest of the country (18.49).[32] Our empirical strategy will exploit within-state variation, thereby absorbing these and other regional differences.

Table 1: Summary Statistics

	Mean	Std. Dev.	Obs.
	(1)	(2)	(3)
Black Population Share	9.958	14.394	2,257
White Population Share	89.640	14.340	2,257
German Population Share	1.723	1.724	2,257
Italian Population Share	3.222	4.144	2,257
Japanese Population Share	0.043	0.150	2,257
Urban Population Share	63.898	32.308	2,257
Farmland (Share of Total County Area)	50.129	29.292	2,257
# Black Volunteers (per 100,000) after PH	8.639	33.337	2,257
South	4.855	15.490	1,245
Not South	18.490	56.988	1,012
# White Volunteers (per 100,000) after PH	46.239	25.795	2,257
South	46.226	35.055	1,245
Not South	46.244	21.864	1,012
Discrimination	-0.193	1.599	2,257

Notes: Observations are at the county level. The statistics are weighed by the 1940 population of eligible men of each race and county.

such as those used by Caprettini and Voth (2020) cannot be linked to enlistment records.

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

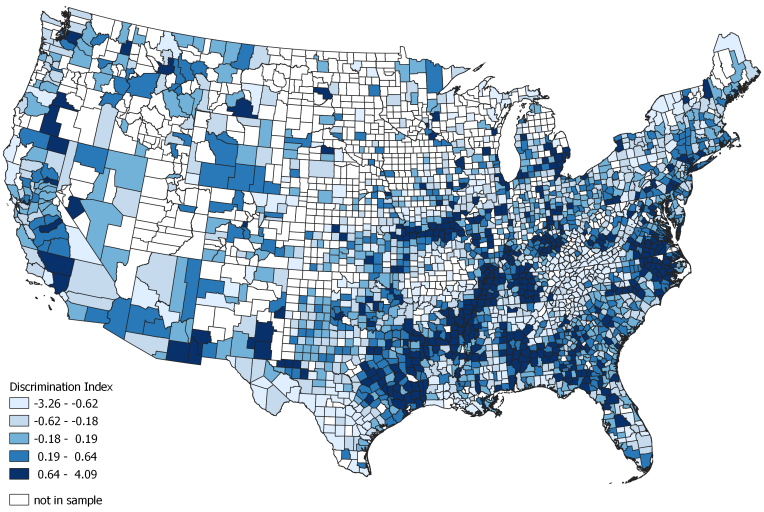
[32] We classify the following states as the South: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

4.2 Discrimination

We construct a parsimonious measure of discrimination by calculating the first principal component of political and social discrimination for the county of enlistment, combining different variables. We include variables used to measure racial discrimination during the early 20th Century that vary at the county level and that are available for the entire U.S.: 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, racial income inequality, and the Logan and Parman (2017) index of residential segregation, isolation, and dissimilarity.[33] Our discrimination measure broadly reflects a person's own experience and that of his community, since racial discrimination in the U.S. is highly persistent (Acharya et al., 2018) and because enlisted men were very young and thus likely to be influenced by their family and community (the median age is 23).

We report the mean and standard deviation of the discrimination measure at the bottom of Table 1. Figure 1 maps discrimination demeaned by state fixed effects (since our estimate exploits within state variation). The map shows substantial variation within states.

Figure 1: Discrimination (within State Variation)



Notes: The figure maps our county-level discrimination index after partialling out state fixed effects.

[33] Appendix Table A.2 lists the sources for each variable. Historically, the the Democratic Party represented the Southern former Confederate states. Thus, the vote share for Democrats is a common proxy for racial attitudes. See, for example, Hornbeck and Naidu (2014); Naidu (2010). To allow for the fact that Democrats in Northern states have different agendas, we will later show that our results are robust to alternative measures of discrimination (e.g., KKK presence) or omitting the Democratic vote share from the principal component calculation (available upon request).

In Appendix Section B.1, we validate the discrimination measure by examining its correlation with two out-of-sample measures of discrimination: the 1948 presidential vote share for Strom Thurmond, a Dixiecrat candidate who opposed efforts to end segregation, and a summary measure of racial inequality in school quality as of 1940 in the spirit of Carruthers and Wanamaker (2017). In the Appendix, we perform several additional checks. We show that the estimates are robust to including additional variables in the index of discrimination, present results for individual components of discrimination and document that our main measure of discrimination has no effect on the enlistment rates of other races. The latter supports our interpretation that the discrimination measure we use captures discrimination targeted at Black men.

4.3 Volunteer Enlistment Patterns

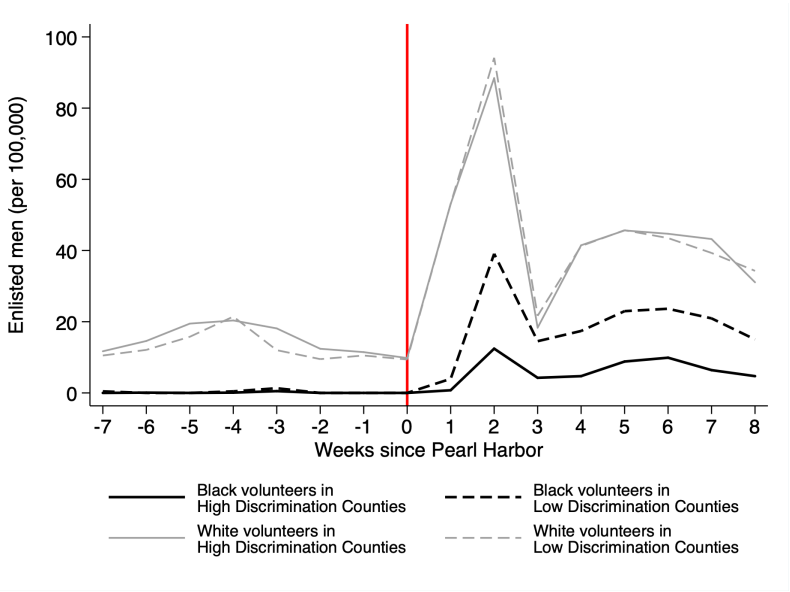
Figure 2 illustrates the variation driving the baseline estimates. We divide counties into those with discrimination values above and below the sample median, and plot average enlistment rates for each race over time for each subsample. Black enlistment rates (black-colored lines) are positive but negligible before the Pearl Harbor attack for all counties. They increase within one week of the attack and the increase is persistently higher in counties with lower discrimination (black dashed line). White enlistment (gray-colored lines) also experiences an sharp rise after Pearl Harbor, but there is almost no difference between counties with high and low discrimination, and the magnitude is larger than for Black men everywhere.[34]

There are no pre-trends. Until Pearl Harbor, volunteer enlistment rates for both races and in all counties evolved along parallel trends. That white enlistment rates were higher in all counties before and after Pearl Harbor is consistent with Black men facing discrimination throughout the period in all counties, even those with relatively lower discrimination.

Conceptually, the triple interaction estimate will approximate the pre-post Pearl Harbor difference in the average vertical distance between high and low discrimination counties for Black men (which is negative), and subtract from it the pre-post Pearl Harbor difference in the average vertical distance between high and low discrimination counties for white men (which is near zero). Figure 2 shows that the triple interaction effect will be negative.

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

Figure 2: Black and White Enlistment from Counties with High and Low Discrimination



Notes: The figure plots enlistment rates over time for high (solid line) and low discrimination (dashed line) counties for Black (black lines) and white (gray lines) volunteers.

5 Main Results

5.1 Baseline Estimates

The baseline regression can be written as:

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

The enlistment rate as a share of eligible men of race i in county j who were inducted as volunteers in the U.S. Army during week t, y_{ijt}, is a function of: the triple interaction of a measure of discrimination in county j, D_j, a dummy variable that equals one for the eight weeks after the attack on Pearl Harbor, P_t, and a dummy variable that equals one if race i is Black, B_{ij}; county-race specific controls interacted with week fixed effects, X_{ijt}; and fixed effects at the race-week, λ_{it}, county-week, π_{jt}, and county-race levels, θ_{ij}. Lower order terms are absorbed by the fixed effects. All regressions are weighed by the race-specific population of eligible men in each county-week. Standard errors are clustered at the county level.[35]

The intuition of the triple interaction estimate is as follows. We interpret Pearl Harbor as a demand shock for the supply of volunteers for the Army and hypothesize that the supply

[35]Results are robust to running unweighed regressions and to using alternative methods of estimating the standard errors. See Appendix D.2 and D.3.

of Black men will depend on the amount of discrimination prevailing in a man's county of origin. This would be captured by a simple natural experiment using a sample of Black men, estimating the interaction effect of the Pearl Harbor shock and a measure of discrimination on enlistment rates. However, there may be factors correlated with discrimination that affect enlistment after Pearl Harbor, such as the distance to Pearl Harbor. Estimating the triple interaction effect of Black, post-Pearl Harbor, and discrimination accounts for this to the extent that such factors influence Black and white enlistment similarly.

Only the triple interaction effect is interpreted as plausibly exogenous. An important advantage of this specification is that it allows us to control for a large number of fixed effects to account for potential omitted variables. County-race fixed effects control for time-invariant factors that vary by race and county, such as the average occupational score or average educational attainment. County-week fixed effects control for all differences across counties that vary over time, such as economic conditions. Race-week fixed effects control for differences across races that vary over time, such as changes in national race-specific war propaganda. For an omitted variable to confound our estimates, it would need to differ by county, time *and* race; *and* to be unaccounted for by the baseline controls, which include the fixed effects and a large number of county-race characteristics interacted with week dummies. We discuss these when we present the baseline results in the next section.

By focusing on a narrow window of time around the attack, we mitigate the possibility that other factors (e.g., social norms, values, segregation within the U.S. military, WWII economic policy) may have changed. We discuss robustness issues more after presenting the main results.

Table 2 presents the baseline 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. The triple interaction is negative and statistically significant at the 1% level. Consistent with Figure 2, the estimate shows that discrimination reduced Black enlistment after Pearl Harbor.

Table 2: The Effect of Discrimination on Black Volunteer Enlistment

	Dependent Variable: # Volunteers per 100,000 Eligible Men						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Baseline		
Discrimination x Black x Post	-2.088	-1.984	-2.044	-3.147	-2.7928	-2.7930	-3.063
	(0.620)	(0.623)	(0.627)	(0.601)	(1.1777)	(1.1775)	(1.038)
Discrimination x Black	-0.038	-1.805	-1.809				
	(0.456)	(0.658)	(0.659)				
Black x Post	-13.218	-13.557	-13.557				
	(1.172)	(1.189)	(1.193)				
Black	-11.86	-10.039	-10.002				
	(0.709)	(0.843)	(0.845)				
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 Controls (see notes) x Week FE	N	N	N	N	Y	Y	Y
County-Race-Week Draft Rate	N	N	N	N	N	Y	N
1940 Share of Officers x Week FE	N	N	N	N	N	N	Y
Observations	70,744	70,745	70,746	70,747	70,748	70,749	70,750
R-squared	0.225	0.335	0.428	0.822	0.823	0.823	0.823
Adjusted R-squared	0.224	0.313	0.409	0.591	0.592	0.592	0.592
Mean Y	30.360	30.360	30.360	30.360	30.360	30.360	30.360
Std. Dev. Y	38.061	38.061	38.061	38.061	38.061	38.061	38.061

Notes: Observations are at the race, county and week level. In columns (5), (6), and (7) the county-race controls from the U.S. 1940 Census are the county-race average of: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. Column (6) augments the specification in column (5) by controlling for the county-race-week draft rate. Column (7) augments the baseline specification by controlling for the 1940 share of officers by either race interacted with week fixed effects. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

To understand the variation captured by the fixed effects that we will introduce to the baseline, it is useful to consider the specific omitted variables relevant for our context. Appendix Table 1 documents the county-level correlates of discrimination with descriptive regressions. All regressions control for state fixed effects and are weighed by the number of eligible individuals during the sample period considered in our analysis. For comparability across variables, we report the standardized coefficients in square brackets. The sample mean and standard deviation of each correlate is reported at the bottom of each panel. The correlates show that many variables, such as population and immigrant population share, or distance to Pearl Harbor, differed between counties with high and low discrimination. *County-week fixed effects* account for the possibility that these and other county-characteristics influence enlistment in a way that changes over time (i.e., after the U.S. enters the war).

Appendix Table B.2 presents the sample means and the correlates with discrimination separately for Black and white men for all of the variables available to us. We find that there are race-specific differences. For example, Black men have lower income and education on average. This would affect the opportunity cost of joining the Army. Lower education may have also affected access to information or the way that a person interpreted news about the war. *Race-week fixed effect*s account for how differences across race influence enlistment decisions in a time-varying way.

Appendix Table B.2 also shows that there are county-race-specific differences that could affect enlistment behavior. The correlates of socio-economic variables and discrimination often have different magnitudes, and even signs, for Black and white men. *County-race fixed effects* account for their influence to the extent that these differences influence average enlistment rates. However, some factors are likely to affect enlistment differently after the Pearl Harbor attack. To address this, we control for a large number of *county-race variables interacted with week fixed effects*. For example, a natural concern in our context is that Black men gained less than white men from war industry economic opportunities which arose after Pearl Harbor, and that the gap varied with discrimination.[36] We address this concern by controlling for a large number of demographic and economic variables that capture potential differences in the opportunity cost of enlistment for Black and white men. We calculate the average of each of these variables for working age men in each county and race in the 1940 Census, and interact each county-race mean with week fixed effects to allow its influence to vary over time. The baseline includes the interaction of week fixed effects with the following variables for each race: the share in the labor force, employment rate, average years of education, average age, average occupational income scores, the share of employment in manufacturing and farming, and log population.[37]

Our study takes place between two major waves of Black migration in the United States.[38] If Black men were more likely to move out of counties with higher discrimination, and if movers were less likely to enlist (e.g., because they were the most politically engaged and sensitive to discrimination), the coefficient of interest will be biased. To address this, the baseline estimates control for the interaction of week fixed effects with cross-county net

[36]Recent studies of a slightly later period 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). Fishback et al. (2020) documents that access to earlier government subsidies, such as those from the New Deal, varied by race. This is unlikely to bias our estimates because these policies did not come into place until later in the war.

[37]We provide a detailed discussion of the descriptive statistics and the correlates of discrimination Appendix Section B.3.

[38]Between 1915 and 1930, during the First Great Migration, about 1.5 million Black Americans moved from the U.S. South to the North. From 1940 to 1970, during the Second Great Migration, more than 4 million African Americans left the U.S. South. See Collins (2021) for more details. The migration of Black Americans, especially prior to 1940, coincided with even larger migration flows among southern whites (Bazzi et al., 2021; Gregory, 2006).

migration for each race between 1930 and 1940 estimated in Gardner and Cohen (1992).[39]

In columns (2) to (5), we gradually introduce the additional baseline controls, which absorb the lower order interaction terms and state fixed effects. The triple interaction is consistently negative, similar in magnitude and statistically precise. In column (4), county-week, race-week and race-county fixed effects absorb the lower order terms.

Column (5) reports the baseline estimate for our parameter of interest, β. The coefficient is -2.79, and is statistically significant at the 5% level. This implies that, after Pearl Harbor, a one standard deviation increase in discrimination (1.6) reduced Black volunteer enlistment by 0.7 standard deviations, or 4.5 per 100,000 eligible individuals.[40] Since the average Black volunteer enlistment rate during the entire window considered in our analysis is 6.02 per 100,000 and the inter-quartile range of discrimination is 1.9, our estimates imply that Black men living in a county at the 25th percentile of discrimination would have been 88% more willing to volunteer than those living in a county at the 75th percentile.

The negative coefficient implies that the discouragement motive dominates the signaling motive. The large magnitude of the discrimination effect is not altogether surprising, given the intensity and long history of discrimination in our context. 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; and Caprettini and Voth (2020) documents that doubling New Deal expenditures in a county raised volunteering (for all races) by 8%.

5.2 Alternative Interpretations

5.2.1 Demand-Side Changes

The main alternative to our supply-side interpretation is that low Black enlistment rates in high discrimination counties were driven by demand-side factors from the Army. Army boards were established prior to Pearl Harbor, and there are no accounts of systematic changes to their operations or members right after Pearl Harbor within our study period. Thus, the county-week fixed effects in the baseline specification account for differences across counties that do not additionally differ by race, such as the location and physical distance to Army recruiters and its influence on the ability to volunteer after Pearl Harbor.

An important caveat is that counties with higher levels of discrimination may have turned

[39] Recall that the location observed in the NARA dataset is usually the location in 1940, which moderates concerns of endogenous location in response to WWII. Results, not reported for brevity, are unchanged when replacing 1930-1940 migration rates with those from previous decades (e.g., 1910-1920, 1920-1930, or 1910-1930).

[40] This number is obtained by multiplying the coefficient in column 5 (-2.79) by one standard deviation of discrimination (1.6), and dividing the resulting quantity by one standard deviation of the pre-Pearl Harbor Black volunteer enlistment rate (6.4).

away a higher share of Black volunteers after Pearl Harbor. For example, if resistance to enlisting Black men or the lack of facilities to house and train Black soldiers was a more serious problem in highly discriminatory counties after Pearl Harbor, then the triple interaction estimate will overstate the true discouragement effect of discrimination. Similarly, Army boards in more discriminatory places may have tried harder to improve white enlistment and white motivation by preventing Black Americans from serving in the Army.

To account for these demand-side factors, we control for the draft enlistment rate for each race, county and week. During this period, the draft was implemented by local boards, which could decide when to induct a conscript and even who to induct by granting exemptions to the draft or disqualifying someone who received a call-up notice.[41] Volunteers and drafted men were pooled together after induction, living and training in the same facilities. Thus, both the behavior of local boards and the logistical constraints for accepting Black men should have been similar for volunteers and conscripts.

Column (6) of Table 2 shows that the triple interaction coefficient is similar to the baseline in column (5) when we control for race-county-week specific draft enlistment rates. The robustness of our estimate supports our supply-side interpretation and goes against the demand-side explanation.

Note that controlling for draft rates addresses two other concerns. The first is the mechanical relationship between conscripts and volunteers: as more men are drafted, there will mechanically be fewer eligible men left to volunteer. The second is the possibility of positive spillover effects from one to the other, if there is a sense of camaraderie.[42]

In column (7), we alternatively control for Army capacity constraints by including the number of officers (as a share of eligible men) of either race in 1940 interacted with week fixed effects. The number of officers reflects the size of local military operations and the ability for the local base to lead and train inductees.[43] The estimates are again similar to the baseline.

5.2.2 News Coverage of Pearl Harbor and Changes in Racial Views

A second alternative explanation for our main result is that the salience of Pearl Harbor and America's entry into the war was lower for Black men in counties with higher discrimination. This seems unlikely *ex ante*, given historical accounts of the news of the attack having been reported immediately throughout the entire nation. Moreover, the county-week and race-week fixed effects in the baseline estimates account for the possibility that news penetration differs by population density or the size of a county, and the county-race controls

[41] Recall from the Background discussion that the causes for disqualification (e.g., health) are similar for conscripts and volunteers.

[42] Results are similar if we control for lagged draft enlistment rates. See Appendix D.2.

[43] We derive the number of officers by race and county using the occupation reported in the 1940 U.S. Census by an individual.

interacted with week fixed effects account for the possibility that factors such as differential residential, demographic, occupational patterns can affect news access.

Nevertheless, to be cautious, we examine coverage in local newspapers, the main news platform alongside radio, and for which we consistently observe coverage at geographically disaggregated levels. We conduct a search for articles that mention the terms "Pearl Harbor" and "Japs", the derogatory term for the Japanese. To account for differential newspaper lengths across papers and time, we normalize by the number of pages containing the word "and". Thus, our coverage measure reflects the share of coverage in a given paper and week.[44]

Figure A.1 Panels A and B show that there is little difference between high (solid line) and low (dashed line) discrimination counties. We find similar patterns when we examine articles with the terms "Army" and "We Need You", amongst the most used phrases in Army recruiting (see Panels C and D).

Coverage was also similar between Black and white/mainstream papers. For example, all papers had at least one front page mention of Pearl Harbor or the war in the newspaper every day for the first month after the attack.[45] We do not divide the papers across counties and race because our sample contains only six Black newspapers.[46]

The descriptive evidence is consistent with the conventional wisdom that news of Pearl Harbor was unlikely to have systematically varied across counties with different levels of discrimination or between Black and white men.

5.3 Spillover Racism

Given that propaganda against Japan after the Pearl Harbor attack contained a high degree of racial prejudice against the Japanese, one may ask to what extent our results are driven by spillover racism triggered by the attack. The spillover effect onto racism against the Black population can be positive or negative. On the one hand, the sudden appearance of an external threat might have created a sense of unity between the white and the Black population.[47] On the other hand, Pearl Harbor may have increased hostility against all minorities.[48] If animosity spillovers triggered by Pearl Harbor were a function of pre-existing discrimination, then this would be another channel through which discrimination affects

[44] Local newspapers data come from the website Newspapers.com. Data are available for 584 of the 2,257 counties in our main sample. The number of pages is not directly observable. Results, not reported for brevity, are very similar without the normalization by paper length.

[45] These statistics are not reported in tables for brevity.

[46] The Black papers in the sample are *California Eagle*, *The Detroit Tribune*, *The Mobile Weekly Advocate*, *The New York Age*, *The Pittsburgh Courier*, and *The Weekly Review*.

[47] Fouka and Tabellini (2021) provide evidence of a similar mechanism by documenting that whites living in areas that were more exposed to Mexican immigration became less prejudiced against African Americans. Along the same lines, Fouka et al. (2022) find that the the inflow of African Americans in northern U.S. cities between 1915 and 1930 ameliorated whites' attitudes towards European migrants, favoring their assimilation.

[48] For example, McConnell and Rasul (2021) find that increased animosity against Muslims "spilled over" onto Hispanics after the 9/11 attacks.

enlistment.

To investigate this, we examine whether the number of racist articles against the Black population increases after Pearl Harbor and differ between high and low discrimination counties. Specifically, we count the number of articles in white newspapers that contain the word "Negro" and a series of racially disparaging stereotypes.[49] Figure A.2 plots weekly averages for counties above (solid line) and below (dashed line) the sample median for discrimination. Newspapers in counties with higher discrimination have a higher frequency of racial stereotypes in all weeks. However, there is no increase after Pearl Harbor for either sub-sample, and the gap between the two remains constant overtime. Thus, there is no evidence that Pearl Harbor triggered additional racism towards the Black population.

5.4 Robustness

5.4.1 Black Community Organizations and Other Potential Correlates

In Table 3, we investigate the sensitivity of our estimates to additional controls that may be correlated with discrimination and have differential influences on Black and white enlistment after Pearl Harbor. In column (1), we restate the baseline using the main sample for comparison purposes. In column (2), we estimate the baseline for a restricted sample for which all of the additional controls can be included. In column (3), we control for several additional variables. First, we include the presence of important Black community organizations that were platforms for communication and organization within the Black community: a dummy variable that equals one if an NAACP chapter was present in the county any time during 1919 and 1940 and the 1936 county-level membership rate in Black churches.[50] Second, we add distance from the county to Pearl Harbor and to Germany, which may have influenced the propensity to volunteer by mediating the immediacy of threat posed by the attack on Pearl Harbor. Third, we consider the proximity to an Army base (that was active as of December 1941).[51] Fourth, we control for the number of years that the state (and the counties within) was a part of the U.S., which could affect exposure to the Army (e.g., experiences of family members who enlisted in the past, propaganda) as well as the strength of national identity. Fifth, we include the 1930 share of Black households that owned radios – the main platform for news dissemination beside newspapers at the time.[52] The estimates include the baseline controls and all lower order interactions.

Column (3) shows that the triple coefficient of interest is robust. It is statistically signifi-

[49] To compile the list of derogatory terms most commonly used in our historical context, we follow Fouka et al. (2022), and use the following words: "violent", "dirty", "rapist", "crime", "ignorant", "slovenly", and "vagrant". As before, we normalize by the number of pages containing the word "and".

[50] For example, see Chay and Munshi (2015), Dippel and Heblich (2021), and Woodson (1921). For more details about the definition and source of the variables, see Appendix B.2.

[51] See Appendix.

[52] We are forced to use 1930 values, because the 1940 Census did not ask about radio ownership.

cant at the 5% level and similar to the baseline in column (2).[53] In addition to demonstrating the robustness of our main finding about discrimination, the additional triple interactions also reveal other factors that affected Black enlistment. They show that the presence of the NAACP and the length of time that the state was part of the Union are positively associated with Black enlistment after Pearl Harbor. The NAACP triple interaction is consistent with the role that the organization played in recruiting for the U.S. Army and the notion that sanction by community organizations can increase motivation. The years-in-the-Union triple interaction is consistent with the idea that men are more motivated if they view the state as legitimate and identify more strongly with the state.

Table 3: The Effect of Discrimination on Black Volunteer Enlistment – Robustness to Controlling for Black Organizations, Distance to the War, and Years in the U.S.

	Dependent Variable: # Volunteers per 100,000 Eligible Men		
	(1)	(2)	(3)
Discrimination x Black x Post	-2.793	-2.745	-2.264
	(1.178)	(1.178)	(1.130)
	[-0.043]	[-0.048]	[-0.039]
Black x Post x NAACP			4.799
			(2.633)
			[0.017]
Black x Post x Black Church			-7.253
			(11.891)
			[-0.010]
Black x Post x Dist. Pearl Harbor			1.129
			(3.264)
			[0.060]
Black x Post x Dist. Germany			1.668
			(4.181)
			[0.093]
Black x Post x Dist. Military Base			-0.186
			(17.572)
			[0.000]
Black x Post x Years Union			0.105
			(0.048)
			[0.104]
Black x Post x Blacks' Radio Own.			7.638
			(9.367)
			[0.009]
Observations	70,744	60,832	60,832
R-squared	0.823	0.851	0.852
Adjusted R-squared	0.592	0.658	0.658
Mean Y	30.360	28.971	28.971
Std. Dev. Y	38.061	35.529	35.529

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. Standardized coefficients are reported in brackets.

[53] Results, not reported for brevity, are robust to introducing each variable one at the time.

5.4.2 WWI Veterans

In this section, we address the concern that discrimination and enlistment rates are both outcomes of omitted variables: namely, historical (WWI) enlistment rates.

The effects of Black WWI veterans on the motivation of a younger generation of Black men to enlist is *ex ante* ambiguous. On the one hand, historical accounts emphasize the disappointment in the Black community after WWI, which may have reduced later enlistment. On the other hand, the motivation to join the military may be transmitted from father to son (Campante and Yanagizawa-Drott, 2015), which implies that WWI participation may have led to higher enlistment during WWII on average (for men of all races).

Table A.4 first reports the baseline specification in columns (1) and (2) for the full sample and the sample restricted to counties for which we observe the additional control variables. In column (3), we control for 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) and for the share of Black individuals in each county eligible to enlist in WWII who were living in a household with a Black WWI veteran.[54] In column (4), we split the share of individuals living with a veteran between those living in a household where the veteran was the head and where he was not the head.

The estimates show that the main result for discrimination is robust to the inclusion of these additional controls, and is not confounded by WWI enlistment patterns. The estimates also indicate that the father-to-son intergenerational transmission of war highlighted by Campante and Yanagizawa-Drott (2015) may be another determinant of Black volunteer rates. The triple interactions with the share living with a WWI veteran in column (3) and the share living with a veteran head in column (4) are positive, large, and statistically significant at the 10% and 15% levels, respectively. These results imply that the positive effect of the intergenerational transmission stemming from WWI dominates the disappointment effect discussed in the historical literature.

5.4.3 Discrimination "Imported" by Migrants

As noted above, the period we study falls between the two waves of the Great Migration (Collins, 2021). This raises the question of the role of discrimination imported from other counties by migrants. For example, if Black men moved from high to low discrimination counties, then the high enlistment rates we observe in low discrimination counties may be partly driven by men who originated from high discrimination counties. In this case, our estimates would overstate the negative effect of exposure to discrimination on enlistment. To investigate this possibility, we construct a proxy for "imported" discrimination using the question from the 1940 U.S. Census that asks individuals for their county of residence in

[54] See Appendix B.2 for more details about variable construction.

1935.[55]

Column (5) of Table A.4 augments our baseline specification by controlling for the triple interaction of imported discrimination, Black and the post-Pearl Harbor dummy variable. Both the coefficient of interest and the coefficient on imported discrimination are negative and statistically significant. This suggests that our main result is driven by own-county discrimination, but that imported discrimination might have amplified this effect.

5.4.4 Farm Ownership and Female Labor Supply

Our baseline specification controls for interactions between week dummies and a large set of county-race specific variables. Among these, we include the share of employment (of either race) in agriculture. A related but distinct factor is *farm ownership*, which differed across counties, between Black and white men, and could have affected the opportunity cost of joining the Army.[56] Another potential concern is that the supply of *female labor force*, which could influence the household opportunity cost of the man joining the army, differed across counties and races.

To address this concern, in Table A.5, we add to the baseline the following variables interacted with week fixed effects: *i)* the number of farms of operators of either race (column 3); *ii)* the number of farm operators (column 4); *iii)* the acres of land in farms (column 5); and, *iv)* all three variables together (column 6). Our results are unchanged (columns 1 and 2).[57]

Another potential concern is that female labor supply, which could influence the household opportunity cost of the man joining the army, varied across counties and races. Hence, in the remaining part of Table A.5, we include interactions between week dummies and the 1940 county-race: *i)* female labor force participation (column 7); *ii)* the number of women in the labor force relative to the number of men who were eligible to serve (column 8); and, *iii)* the share of women between 15 and 28 (column 9).[58]

5.4.5 Additional Sensitivity Checks

We present several additional robustness checks in Appendix D. We verify that results are robust to controlling for distances to places of particular importance to the Black population

[55] For each county, we obtain the number of Black migrants arrived between 1935 and 1940, and then multiply this by discrimination in the county of origin. We then scale this measure by 1940 (receiving) own county Black population to account for the fact that the same number of migrants will have different effects depending on the size of the destination county.

[56] Later in the war, farm ownership directly factored into the local boards' decisions about exemptions and deferrals from the draft (Acemoglu et al., 2004).

[57] The additional variables (which are taken from the Census of Agriculture) are not available for all the counties in our sample. In column (2) of Table A.5, we replicate the baseline specification (reported in column 1) for the counties for which data is available. All controls refer to 1940, except for the number of farms, which is measured in 1935.

[58] As shown in Goldin and Olivetti (2013), women in this age range were particularly likely to enter the labor force during WWII.

– Tuskegee, Tulsa, *48ers* settlements, and Civil War refugee camps – that could influence their attitudes towards the white establishment and desire to enlist (Appendix Table 1).

In Appendix D, we consider a large number of additional measurement, specification, and sample issues. We show that results are robust to: *i)* controlling for alternatively lagged draft enlistment rates; *ii*) controlling for the rates of race mis-classification, e.g., passive or active choice for Black men to enter the Army as "white", *iii*) omitting Command 7 area for which the enlistment data are incomplete, *iv)* estimating unweighed regressions, *v)* controlling for 1935-1940 migration rates instead of 1930-1940 in the baseline, *vi)* including *state-week-race fixed effects,* and *vii)* controlling for the share of households of either race that owned a radio in 1930 (Appendix Table 2).

Finally, Appendix D.3 and D.4 document that results are robust using alternative methods of estimating the standard error (Appendix Table 3, Panel A) and are not driven by potential outliers (Appendix Table 3, Panel B).

5.5 Heterogeneous Effects

In Appendix E, we divide the sample according to whether the county is in the South, the presence of an NAACP chapter, the presence of a Black Church, distance to Pearl Harbor (Germany), number of years in the Union, the presence of a WWI veteran and household head, distance to the closest military base, urban population share, Black Radio ownership, and the share of immigrant population from Japan, Italy and German (Appendix Tables E.1 and E.2). The estimates show that the effects of discrimination are fairly similar across the United States. The one exception is the finding that the effect of discrimination is driven by places far away from Pearl Harbor. This suggests that proximity to danger moderates the effect of discrimination.

5.6 The Effect of Discrimination on the Quality of Volunteers

Our main results show that discrimination reduced the supply of Black men. In this section, we examine if it also affected military capacity by changing the quality of Black volunteers. An important metric for quality used by the military is educational attainment, which is also one of the most important determinants of military rank at the time of induction.[59] Educated men are considered by the military to be more able and have stronger leadership abilities (Flynn, 1998).

Since the Army had an explicit policy to give Black men menial jobs, returns to education for Black men were very low in the Army. They may even have been lower in the Army than in the outside economy, which had relatively more flexibility. At the time of

[59]Rank and combat experience are the most important determinants for Army compensation, and the scale did not differ by race. In a related study, Carter et al. (2017) documents that the share of white enlistees in the U.S. Army from high-income neighborhoods increased, while that of Black Americans and low income whites declined during 2000 and 2010.

induction, rank in the Army is determined by the local Army board. Since our measure of discrimination reflects attitudes of the local community from which the Army board is selected, we hypothesize that discrimination reduces the returns to education for Black men in terms of rank at the time of induction.

Table 4: Correlates of Army Rank at the Time of Volunteers' Induction

	Dependent Variable: 1[Rank higher than private]		
	(1)	(2)	(3)
Years of Schooling	0.053	0.054	0.056
	(0.001)	(0.001)	(0.001)
Years of Schooling x Black		-0.045	-0.048
		(0.003)	(0.003)
Years of Schooling x Black x Discrimination			-0.005
			(0.002)
Observations	109,480	109,480	109,480
R-squared	0.252	0.253	0.256
Adjusted R-squared	0.238	0.239	0.242
Mean Y	0.112	0.112	0.112
Std. Dev. Y	0.315	0.315	0.315

Notes: Observations are at the individual level. The sample is restricted to Black and white volunteers for the 16 week-window and for the counties of the baseline estimates. Years of schooling is a continuous variable, ranging from 9 (i.e. grammar school) to 18 (i.e. postgraduate education) years. All regressions control for a dummy for being Black, age, and age squared. Columns (2) and (3) also add interactions between the age variables and the Black dummy. Discrimination in column (3) is the main county-level measure of discrimination. Column (3) also includes the interaction between the discrimination measure and years of schooling (not reported for brevity). All regressions include county and week fixed effects. Standard errors are clustered at the county level.

To verify our intuition, we first estimate a Mincerian regression where the dependent variable is a dummy variable that takes the value of one if the rank at induction is higher than a private. On average, 6.1% of all men, 1.1% of Black men and 6.5% of white men are inducted at a rank higher than private (see Appendix Table A.3). To keep the analysis consistent, we restrict attention to Black and white men who enlisted during the 16-week window around Pearl Harbor in the counties of our main sample. All regressions control for age, age squared, a dummy equal to one if the man is Black, interactions between the age variables and the Black dummy, and county and week fixed effects. Table 4, column (1), shows that returns to schooling are positive on average for all men. An additional year is associated with increasing the probability of being inducted at a rank higher than private by 5.3 percentage points. The sample mean for years of education is 12 for all men, 10.6 for Black men and 12.2 for white men (see Appendix Table A.3).

Column (2) shows that there is a large discount in the returns to schooling for Black

men. The interaction between years of education and the dummy for being Black shows that, relative to white men, the probability of being inducted at a rank higher than private is 4.5 percentage-points lower for Black men. Summing the interaction coefficient with the uninteracted years of education coefficient implies that, for Black men, an additional year of education is associated with only approximately one percentage point ($-0.045 + 0.054 = 0.009$) higher probability of being inducted at a rank higher than private. The coefficients are statistically significant at the 1% level.

In column (3), we add the triple interaction between years of schooling, the Black dummy, and discrimination. The regression includes all lower order interactions (not reported for the sake of brevity). The coefficient on the triple interaction is -0.005. Thus, the Black penalty in returns to education is more pronounced in counties with higher discrimination. The coefficient is statistically significant at the 1% level.

Table 5: Effects of Discrimination on Characteristics of Volunteers

	Dependent Variable: Share of Volunteers with the Characteristic Below					
	Inducted as Higher than Private Grade	Years of Schooling	Completed High school	Worked in the Sector		
				Agriculture	Manufacturing	Services
	(1)	(2)	(3)	(4)	(5)	(6)
Discrimination x Black x Post	-0.451	-3.847	-0.549	-0.183	-0.535	-0.074
	(0.043)	(0.909)	(0.225)	(0.079)	(0.126)	(0.296)
Observations	1,082	1,082	1,082	834	834	834
R-squared	0.970	0.912	0.897	0.843	0.849	0.800
Adjusted R-squared	0.794	0.074	0.074	0.063	0.063	-0.696
Mean X	0.074	0.074	0.074	0.063	0.063	0.063
Sd X	0.525	0.525	0.525	0.477	0.477	0.477

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Next, we examine whether discrimination influenced the characteristics of Black volunteers. In Table 5, we estimate the baseline specification, using as dependent variable the share of volunteers (of a given race in a given week and county) with the characteristic reported at the top of each column as outcomes. Since the sample is restricted to counties and weeks where at least one man of each race volunteered, the number of observation is substantially lower than in the earlier analysis.

Column (1) shows that discrimination had a strong, negative effect on the probability that Black men were inducted at ranks higher than private. Column (2) shows that discrimination lowered the number of educated Black volunteers. Column (3) confirms the findings in column (2) by using a dummy variable for whether a man has completed high-school as an alternative measure of education.[60]

[60] Note that in our sample, 21.8% of Black men and 54.1% of white men had completed high-school.

In terms of magnitudes, note that the standard deviation in this sample is 0.525 for discrimination.[61] Thus, a one standard deviation increase in discrimination reduced the probability that a Black man was inducted at a higher rank by 23.7 percentage points ($-0.451 \times 0.525 = -0.237$), which is 85% of one standard deviation of the latter variable. Similarly, a one standard deviation increase in discrimination reduced the years of education of a Black volunteer by 2.02 ($-3.847 \times 0.525 = -2.02$), which is about one standard deviation of the years in education for Black enlistee (1.96). Finally, a one standard deviation increase in discrimination reduced the probability that a Black volunteer had completed high school by 28.8 percentage-points ($-0.549 \times 0.525 = -0.288$), which is 70% of one standard deviation of the probability that a Black enlistee had completed high school ($-0.288/0.413 = 0.698$).

Taken together, columns (1) to (3) indicate that discrimination had a negative impact on the quality of Black volunteers, and that this was both statistically and economically significant.

Columns (4)-(6) examine the sector of employment of a man at the time of induction, focusing on agriculture, manufacturing, and services.[62] We find negative coefficients for all three sectors. The coefficients for agriculture and manufacturing are statistically significant at the 1% level. That is, after Pearl Harbor, discrimination reduced the share of Black volunteers coming from manufacturing and agriculture.

The results in this section complement our previous analysis by showing that discrimination also reduced the quality of volunteers. We conjecture that this was, at least in part, due to the fact that educated Black men were rewarded less for their skills in the Army in places with high discrimination. Another explanation for the negative effect of discrimination on Black volunteers' educational attainment could be that educated men were more likely to be politically active, and therefore more responsive to discrimination (Croke et al., 2016; Larreguy and Marshall, 2017).

6 Additional Results

6.1 Japanese Americans

In this section, we examine the enlistment behavior of Japanese Americans after they were first barred and then allowed to enter the Army.

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

[61] This is lower than in the full sample, where the standard deviation is 1.599 (Table 1).

[62] These sectors account, together, for about 90% of employment in the enlistment data in our sample. See Appendix Table A.3 for descriptive statistics of employment by sector and race. Note that the number of observations in columns (4) to (6) of Table 5 is lower than in columns (1) to (3) because sector of employment was not reported by all individuals, leading to some missing county-week-race cells.

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 men and women.[63]

Internment was implemented rigorously on the U.S. mainland. However, 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, who comprised approximately 30% of the total Hawaiian population, was seen as practically infeasible.

On February 1, 1943, President Roosevelt announced the creation of a segregated battalion comprised of Japanese American soldiers commanded by white officers to increase U.S. fighting capacity. 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.[64]

We exploit the recruitment of Japanese American men for the military in 1943 together with variation in internment as another natural experiment for examining the effect of discrimination and disenfranchisement. The first cohort to be affected was inducted in March 1, 1943. We compare Japanese American enlistment before and after March 1, 1943, between Hawaii and the mainland.

To be eligible for selective service, loyalty questions were administered to all Japanese American men.[65] Only those who provided acceptable answers were inducted into the military. This conditionality gave Japanese American men discretion over whether they were drafted. Thus, the draft rate reflects the motivation to enlist.[66] For consistency with our

[63]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.

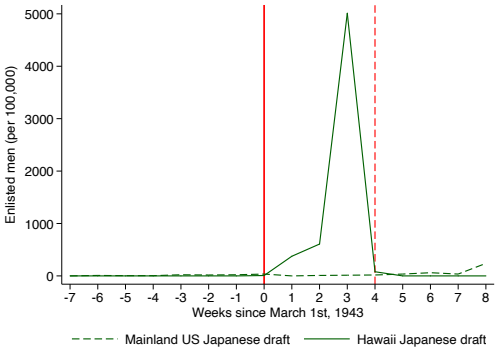
[64]The most well-known is probably the 100th Infantry Division of the 442nd Infantry Regimental Combat Team. Because of the high rate of casualties the 100th Infantry Battalion sustained, it became known as the "Purple Heart Battalion". For its service during WWII, the 442nd (including the 100th prior 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).

[65]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 (Lyon, 2012).

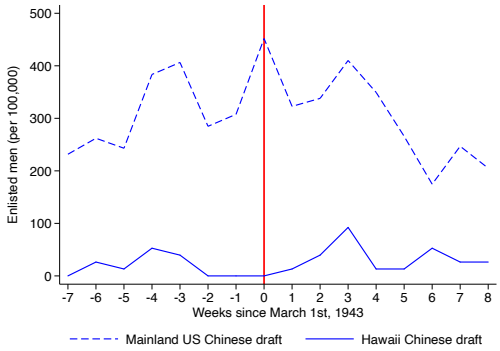
[66]This interpretation is consistent with that of historians. See, for example, Hayashi (2010), Muller (2007),

Figure 3: Japanese and Chinese Enlistment Rates – March 1, 1943

(a) Japanese American Enlistment on the Mainland and Hawaii



(b) Chinese American Enlistment in the U.S. Mainland and Hawaii



previous analysis, we restrict attention to the eight weeks before and after March 1, 1943.

Figure 3a plots Japanese American enlistment rates over time for the mainland and Hawaii. It shows that 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 policy change, there was a large spike in enlistment in Hawaii, but no noticeable change from the mainland. These patterns are consistent with Japanese Americans living in Hawaii, who faced less discrimination, 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 so that it could assess the causes of low mainland enlistment rates (Castelnuovo, 2008).

For comparison, Figure 3b 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. There were no anti-Chinese policies specific to the war period, and as many as 75% of Chinese Americans served with white units. Chinese Americans exhibit no change in the mainland-Hawaii enlistment gap before and after March 1, 1943.

The descriptive patterns are consistent with the main result that disenfranchisement and discrimination discouraged men from enlisting.[67]

Appendix F discusses enlistment patterns for all races and documents that they are broadly consistent with the degree of racial discrimination faced by each race.

Omori (1999), Weglyn (1996).

[67] We do not have county-level measures of discrimination against the Japanese. Thus, we are unable to replicate the main analysis at the same level of granularity.

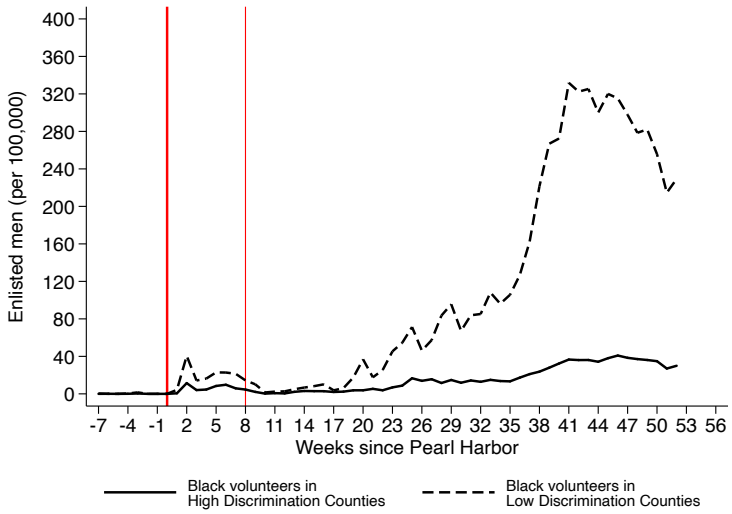
6.2 Later in 1942

To identify the full impact of discrimination, the main analysis focuses on a narrow window of time during the early phase of U.S. participation in WWII. We are unable to provide a rigorous empirical analysis of enlistment during the later parts of 1942, which was likely affected by numerous and varying factors. However, given the high rate of overall Black volunteer enlistment in this latter period, it is important to examine and discuss the descriptive patterns.

A few months after Pearl Harbor, the U.S. government recognized the urgency of boosting Black enlistment rates, and focused significant propaganda efforts on the Black community. Groups such as the NAACP and Black news outlets also began to promote the Double V campaign – the idea that victory abroad would lead to victory against racism at home. Even though very little actually changed in the U.S. military, which remained segregated until 1948, Black volunteer enlistment increased dramatically and overtook white volunteer enlistment by June, 1942.

Figure 4 plots Black volunteer enlistment rates in high and low discrimination counties until the U.S. army banned volunteering in December 1942. The increase in enlistment confirms historical accounts of Black patriotism during war. Black men were persuaded to join with very little real inducement. The cross-county comparison shows that the later surge in Black volunteer enlistment was driven by counties with relatively low discrimination, which is consistent with our earlier finding of lower volunteer enlistment in high-discrimination areas. Understanding the determinants of Black enlistment in the latter part of 1942 is an important topic for future research.

Figure 4: Black Volunteer Enlistment until Volunteering was Banned



7 Conclusion

This study shows that discrimination lowered Black volunteer enlistment at the onset of American involvement in WWII. Our results show that discrimination can undermine an important dimension of state capacity, and that the social costs of discrimination can be reach far beyond the labor market. 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 old idea dating back to the *social contract* on which all modern states are based. Our results are a sober reminder that the principle has not been applied to all citizens, which led to reduced state capacity during critical moments when equality and inclusion would have served the national public good.

The dynamic relationship between state capacity, war, and inclusion and discrimination is complex. Our study shows that rigorous empirical analyses can be a promising direction for making progress on this agenda. Interesting avenues for future investigation include examining the effect of political inclusion or discrimination on outcomes such as tax compliance and voluntary public goods contributions. It would be particularly interesting to compare contexts where state capacity is a binding constraint for the government (e.g., war time) to contexts where it is not (e.g., peace time). Finally, future work should seek to understand the long-run consequences of WWII for racial discrimination, and in particular, political activism during Civil Rights. Evidence from other contexts (Becker et al., 2019; Weigel, 2020) suggests that Black participation during WWII may have led to increased political activism afterwards. Equally interesting is the question of the consequences of interracial interaction in the military on white attitudes on race, as done by (Schindler and Westcott, 2021) for WWII and (Indacochea, 2019) for the Korean War.

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Appendix

Table A.1: Description of Main Variables

Variable	Description	Source
Volunteers	Volunteers per 100,000 individuals eligible to serve in the county-week	World War II Army Enlistment Records (NARA-AAD), 1938-1946
Draftees	Draftees per 100,000 individuals eligible to serve in the county-week	World War II Army Enlistment Records (NARA-AAD), 1938-1946
Net Migration '30-'40	Net Migration Rate in % between 1930 and 1940	Authors' calculation from 1940 Census Ruggles et al. (2020)
Black Church Membership 1936	Number of members of African American churches relative to county population in 1936	Census of Religious Bodies
Presence of NAACP Chapter 1940	Presence of NAACP Chapter in 1940	Gregory and Estrada (2019)
Distance from Japan (1000 km)	Distance to Japan in 1000 km. from county centroids	Authors' calculation
Distance from PH (1000 km)	Distance to Pearl Harbor in 1000 km from county centroids	Authors' calculation
Distance from Germany (1000 km)	Distance to Germany in1000 km from county centroids	Authors' calculation
Distance from closest Military Base (1000 km)	Distance to the closest Military Base in 1000 km from county centroids	Authors' calculation
WWII spending per capita	Total Government spending for WWII, including expenses for contracts and facilities, in U.S., per capita.	County and City Data Books (ICPSR Study 7735)
New Deal Agricultural Grants per capita	Total 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.	Fishback et al. (2003)
New Deal (NON-repayable) per capita	Total 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 U.S. Housing Administration	Fishback et al. (2003)

Notes: Variables used in the paper but not described here or in other tables are calculated from the 1940 U.S. Census (Ruggles et al. 2020).

Table A.2: Description of Discrimination Components

Variable Name	Description	Source
President Vote Share Democrat 1900-1930	Average vote share in Presidential elections, for each election between 1900 and 1930.	Clubb et al. (1990)
Congress Vote Share Democrat 1900-1930	Average vote share in Congressional electionsl, for each election between 1900 and 1930.	Clubb et al. (1990)
Presence of KKK	Dummy = 1 if the KKK is present any year between 1915 and 1940.	Kneebone and Torres (2015)
Number of Lynching cases up to 1939	Total # of lynchings of Black individuals between 1803 and 1939.	Monroe Work Today (MWT)
Dissimilarity Index 1940	The evenness of which Black and white individuals are distributed across areas.	Logan and Parman (2017)
Isolation Index 1940	The extent to which Black and white individuals are exposed to each other.	Logan and Parman (2017)
Segregation Index 1940	Likelihood of interracial interaction in residential communities.	Logan and Parman (2017)
White-Black Wage Gap 1940	Difference in average positive wage for white and Black Americans in 1940.	Author's computation, 1940 U.S. Census

Notes: The table presents the variables used to construct the discrimination principal component measure used in the main analysis. All variables are measured at the county level.

Table A.3: Summary Statistics - Individual Level

	All counties			High Discrimination			Low Discrimination		
	Mean	Std. Dev	Obs	Mean	Std. Dev	Obs	Mean	Std. Dev	Obs
Panel A. Full Sample									
Volunteers	0.412	0.492	266,545	0.39	0.488	133,062	0.434	0.496	133,483
Draftees	0.588	0.492	266,545	0.61	0.488	133,062	0.566	0.496	133,483
Black	0.061	0.239	266,545	0.1	0.3	133,062	0.022	0.147	133,483
White	0.939	0.239	266,545	0.9	0.3	133,062	0.978	0.147	133,483
At Least High School Degree	0.522	0.5	266,545	0.497	0.5	133,062	0.546	0.498	133,483
Years of Schooling	12.075	2.254	266,545	12.035	2.320	133,062	12.114	2.187	133,483
In agriculture	0.083	0.275	266,545	0.092	0.289	133,062	0.073	0.26	133,483
In manufacturing	0.557	0.497	266,545	0.509	0.5	133,062	0.605	0.489	133,483
In Service and Clerical Occupations	0.228	0.42	266,545	0.257	0.437	133,062	0.199	0.399	133,483
At Least Some High School	0.786	0.41	266,545	0.771	0.42	133,062	0.801	0.4	133,483
In Private Grade	0.939	0.24	266,545	0.931	0.253	133,062	0.946	0.226	133,483
Age	23.622	3.097	266,440	23.659	3.113	133,009	23.585	3.081	133,431
Panel B. Black Men									
Volunteers	0.125	0.33	16,230	0.115	0.319	13,260	0.168	0.374	2,970
Draftees	0.875	0.33	16,230	0.885	0.319	13,260	0.832	0.374	2,970
At Least High School Degree	0.218	0.413	16,230	0.2	0.4	13,260	0.296	0.457	2,970
Years of Schooling	10.613	1.986	16,230	10.514	1.975	13,260	11.055	1.975	2,970
In agriculture	0.124	0.329	16,230	0.145	0.352	13,260	0.031	0.172	2,970
In manufacturing	0.594	0.491	16,230	0.573	0.495	13,260	0.686	0.464	2,970
In Service and Clerical Occupations	0.229	0.42	16,230	0.229	0.42	13,260	0.23	0.421	2,970
At Least Some High School	0.515	0.5	16,230	0.482	0.5	13,260	0.659	0.474	2,970
In Private Grade	0.989	0.106	16,230	0.988	0.11	13,260	0.993	0.086	2,970
Age	23.636	3.011	16,221	23.576	3.011	13,252	23.902	2.998	2,969
Panel C. White Men									
Volunteers	0.431	0.495	250,315	0.421	0.494	119,802	0.440	0.496	130,513
Draftees	0.569	0.495	250,315	0.579	0.494	119,802	0.560	0.496	130,513
At Least High School Degree	0.541	0.498	250,315	0.53	0.499	119,802	0.552	0.497	130,513
Years of Schooling	12.169	2.238	250,315	12.203	2.294	119,802	12.138	2.185	130,513
In agriculture	0.08	0.271	250,315	0.087	0.281	119,802	0.074	0.262	130,513
In manufacturing	0.555	0.497	250,315	0.502	0.5	119,802	0.603	0.489	130,513
In Service and Clerical Occupations	0.228	0.42	250,315	0.261	0.439	119,802	0.198	0.399	130,513
At Least Some High School	0.804	0.397	250,315	0.803	0.398	119,802	0.804	0.397	130,513
In Private Grade	0.935	0.246	250,315	0.925	0.264	119,802	0.945	0.228	130,513
Age	23.621	3.103	250,219	23.669	3.124	119,757	23.578	3.082	130,462

Notes: The data are reported in the Army induction cards. See the World War II Army Enlistment Records (NARA-AAD), 1938-1946.

Table A.4: The Effect of Discrimination on Black Volunteer Enlistment – WWI Veteran Presence and Migration-Induced Discrimination

	Dependent Variable: # Volunteers per 100,000 Eligible Men				
	(1)	(2)	(3)	(4)	(5)
Discrimination x Black x Post	-2.793	-2.783	-2.563	-2.652	-2.301
	(1.178)	(1.178)	(1.169)	(1.151)	(1.218)
	[-0.043]	[-0.043]	[-0.039]	[-0.041]	[-0.035]
Share of Black WWI Veterans x Black x Post			-24.045	-36.692	
			(25.927)	(28.237)	
			[-0.022]	[-0.034]	
Share Living with Black WWI Veteran x Black x Post			146.128		
			(87.200)		
			[0.019]		
Share Living with Black WWI Veteran head x Black x Post				79.045	
				(48.131)	
				[0.036]	
Share Living with Black WWI Veteran non-head x Black x Post				28.748	
				(33.169)	
				[0.011]	
Migration Transmitted Discrimination x Black x Post					-25.595
					(11.174)
					[-0.029]
Observations	70,744	70,088	70,088	70,088	70,744
R-squared	0.823	0.822	0.822	0.822	0.823
Adjusted R-squared	0.592	0.590	0.590	0.590	0.592
Mean Y	30.360	30.344	30.344	30.344	30.360
Std. Dev. Y	38.061	37.994	37.994	37.994	38.061

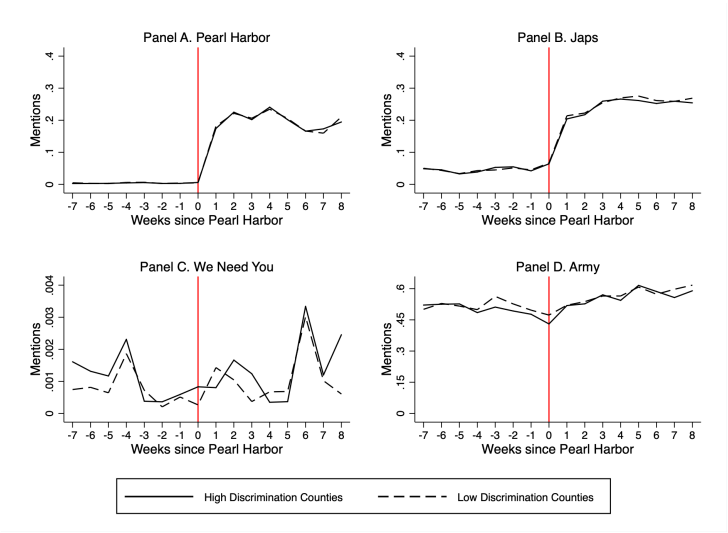
Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. Standardized coefficients are reported in brackets. See Appendix B for more details on the construction of WWI Veterans.

Table A.5: Controlling for Farming and Female Labor Force Participation

	Dependent Variable: # Volunteers per 100,000 Eligible Men								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Additional Control: Week Fixed Effects x						
	Baseline	Baseline - Smaller Sample	Number of farms	Farm population	Acres of land of operators	All agricultural variables	Female Labor Force Participation	Female Labor Force Participation, rel. to eligible men	% women 15-28
Discrimination x Black x Post	-2.793	-2.707	-2.640	-2.650	-2.719	-2.521	-2.759	-3.065	-2.682
	(1.178)	(1.202)	(1.217)	(1.190)	(1.198)	(1.204)	(1.181)	(1.201)	(1.181)
Observations	70,744	61,472	61,472	61,472	61,472	61,472	70,744	70,744	70,744
R-squared	0.823	0.855	0.855	0.855	0.855	0.855	0.823	0.823	0.823
Adjusted R-squared	0.592	0.665	0.665	0.665	0.665	0.665	0.592	0.592	0.592
Mean Y	30.360	29.499	29.499	29.499	29.499	29.499	30.360	30.360	30.360
Std. Dev. Y	38.061	36.765	36.765	36.765	36.765	36.765	38.061	38.061	38.061

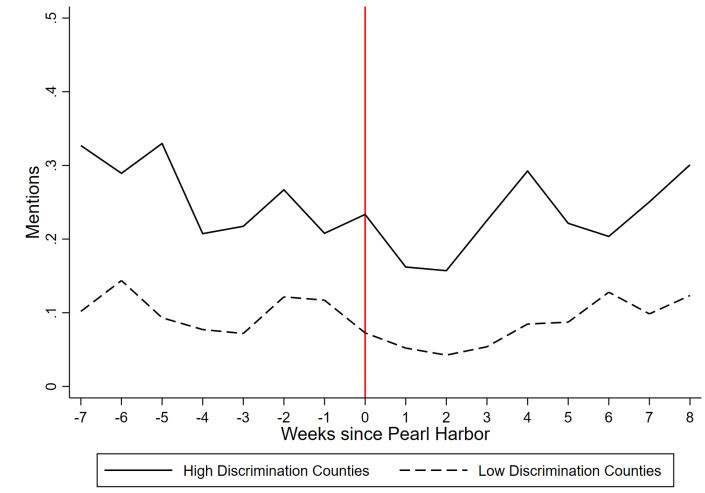
Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Figure A.1: Share of News Coverage About the War in Local Newspapers



Notes: The figure reports the mentions in local newspapers of each term specified in the title of each panel, for counties with discrimination above (solid line) and below (dashed line) median discrimination. To normalize by the total length of each paper, the number of mentions is divided by the number of pages containing the word "and".

Figure A.2: Average Stereotype joint with "Negro"



Notes: The figure reports the average number of articles containing the words "Negro" and racially disparaging stereotypes. The disparaging terms are taken from Fouka et al. (2022), and are: "violent", "dirty", "rapist", "crime", "ignorant", "slovenly", and "vagrant". The number of articles is normalized by the total length of each paper (the number of pages containing the word "and").

Online Appendix Not for Publication

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A Racial Discrimination at the Onset of WWII

The pervasive racial discrimination prevailing in the U.S. at the onset of WWII had been going on 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 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, as many as 3,446 Black Americans 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 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).

Black workers benefited very little from war industries relative to white workers, especially during the early part of the war that we study. For example, in January 1942, only 25% of the heads of several hundred companies that held war contracts stated in a U.S. Employment Service survey that they planned to hire Black workers. 51% stated that they did not plan then or in the future to ever employ Black workers. Half of the 282,245 job openings in war industries were not open to Black applicants as a matter of policy. Similarly, among the 1,630 defense job training courses financed by a $60 million fund appropriated by Congress in 1940, only 194 accepted Black applicants. In 1942, Black individuals accounted for only 0.7% of essential war production workers. In 1943, it had only risen to 1.3% (Davis, 1955).

B Data

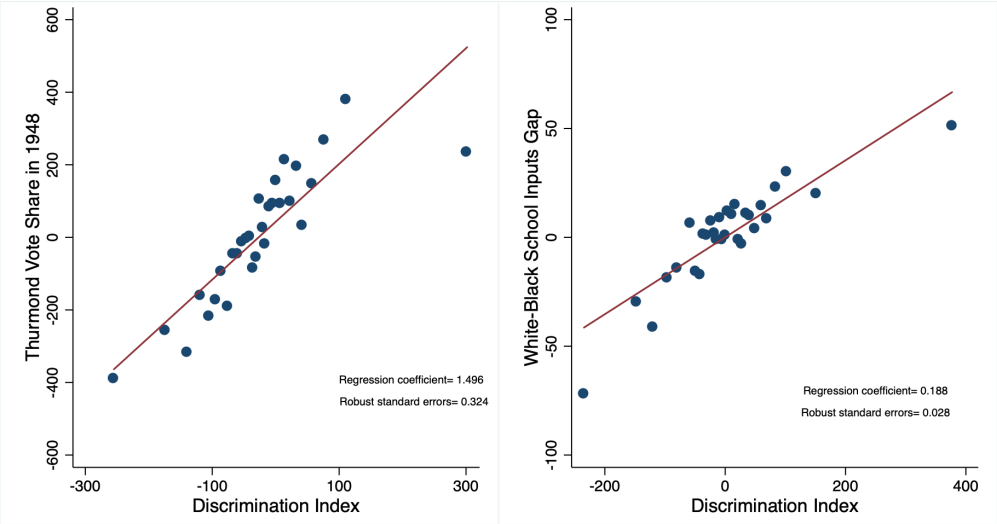
B.1 Discrimination Validation

We validate our measure of discrimination by examining its correlation with other known proxies for discrimination. Our composite discrimination measure is constructed using all variables that reflect discrimination at the county level and are available for the entire nation. Thus, our validations measures are variables that vary at the county level and which are not available for the entire nation. First, we consider the 1948 vote share for Strom Thurmond, a renowned segregationist who in his bid for president, boasted that "there's not enough

troops in the army to force the Southern people to break down segregation and admit [Black residents] into our theaters, into our swimming pools, into our homes, and into our churches". Second, we derive a summary measure of racial inequality in school quality as of 1940 in the spirit of Carruthers and Wanamaker (2017). As in the latter paper, we restrict attention to the Southern states for which data are available and compute the average inequality across different school inputs between Black and white schools.[68]

We test whether our index correlates with these "external" proxies for segregation and discrimination. Appendix Figure 1 plots the relationship between the index of discrimination (on the x-axis) and, respectively, Thurmond vote share (left panel) and school inequality (right panel), after demeaning by state fixed effects.[69] Reassuringly, the index of discrimination is positively correlated with both external proxies for segregation – a correlation that, in both cases, is statistically significant at the 1% level.

Figure 1: Validating Discrimination



Notes: The figure reports the binned scatterplot (using 30 bins) of the relationship between the Discrimination variable and Thurmond's vote share in the 1948 elections (left panel), and white-Black school-inputs gap (right panel). Variables on the x and y-axes represent residual changes, after demeaning by state fixed effects. Regressions are weighed by size of the male population eligible to enlist in each county and estimate robust Huber-White standard errors.

[68] Data on Black and white schools are available for the following states: Alabama, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas. Both Thurmond vote share and the measure of racial school inequality are available only for a subset of counties in our sample. Since we use all of the variables that are available at the county level for the entire country, the validation variables will necessarily be available for a subset of counties.

[69] For consistency with our main analysis, we weigh the regressions by the number of eligible individuals in each county.

B.2 NAACP, Black Church, WWI Veteran Data

Data on the local presence of NAACP chapters are from Gregory and Estrada (2019). See also Calderon et al. (2022) for a detailed description of these data. We measure NAACP presence as an indicator variable equal to one if a county had at least one NAACP chapter between 1919 and 1940. Membership in Black churches is the share of the county population that has membership in a Black church in 1936, as measured in the Census of Religious Bodies. WWI veteran is reported in the 1930 (and not in the 1940) census. The share of Black WWI veterans is computed relative to the (Black) eligible population. We follow Mazumder (2019) and Campante and Yanagizawa-Drott (2015) and use age in 1930 to predict whether a man is eligible to serve in WWI.

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.[70] 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.[71] 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 eligible 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, Black Americans' geographic mobility should add noise to our results, unless it was systematically correlated with both WWI veteran shares and patterns of Black individuals' volunteering behavior during WWII. We use the 1930 and 1940 censuses to examine Black migration rates and find no evidence for this concern.

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

[71] 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 (2015) for more details on the WWI draft.

B.2.1 Army Bases

To obtain the distance of each county from the closest military base, we proceed as follows. First, we compiled the list of all camps and bases that were active as of December 1941 from multiple sources. Next, we excluded those that were not involved with Army operations (since our enlistment data only focuses on the Army). Finally, we obtained the coordinates of each base, and calculated the distance to the county centroid.

B.3 Descriptive Statistics – Correlates of Discrimination

B.3.1 Correlates of Discrimination

Appendix Table 1 documents the county-level correlates of discrimination. All regressions control for state fixed effects and are weighed by the number of eligible individuals during the sample period considered in our analysis. For comparability across variables, we report the standardized coefficients in square brackets. The sample mean and standard deviation of each correlate is reported at the bottom of each panel.

In Panel A, we consider baseline demographic characteristics. Discrimination is positively correlated with the Black county population share; the population share of those with German, Italian, and Japanese ancestry (the latter is statistically imprecise); and total county population.[72]

Panel B examines variables specific to the Black community that may have influenced Black men's decision to enlist in WWII. The correlation between discrimination and the presence of a chapter of the National Association for the Advancement of the Colored People (NAACP) is positive but statistically insignificant (column 1). Discrimination is positively associated with the 1936 membership rate in Black churches (column 2) and negatively associated with the share of Black men who were WWI veterans (column 3). There is no correlation between discrimination and the share of Black men eligible to serve in WWII living with a WWI veteran (column 4) and the share of Black men eligible to serve in WWII living in a household with a WWI veteran who is not the head (column 6). There is a strong and positive correlation between discrimination and the share of Black men eligible to serve in WWII living with a WWI veteran who is the household head (column 5).[73]

Finally, Panel C examines WWII government spending and New Deal expenditures as well as distance from Pearl Harbor, Germany, and Japan. These factors can affect the moti-

[72] Also, discrimination is negatively correlated with white population share. Since most of the population is white or Black, this follows from the positive correlation between Black population share and discrimination.

[73] The number of observations in columns (3) to (6) is lower than in the rest of the table because for a few counties in our sample there was no Black men within the eligible age range for WWI or within the eligible age range for WWII in the 1930 U.S. Census. See the Data Appendix B.2 for a discussion of the NAACP, Black churches and WWI veteran measures.

vation of Black men to enlist by influencing their attitude towards the U.S. government or the immediacy of the threat from the Pearl Harbor attack or WWII more generally. Discrimination is positively associated with WWII government spending (column 1), non-agricultural New Deal grants (column 3), distance from Pearl Harbor (column 4) and distance from Japan (column 6); and negatively associated with agricultural New Deal relief spending (column 2) and distance to Germany (column 5).
These differences between counties with high and low discrimination can affect average Black volunteer enlistment rates. Their influence on Black enlistment rates is also likely to change after Pearl Harbor pushes the U.S. into war. Thus, the main analysis will account for them by controlling for county-week fixed effects.

Table 1: The Correlates of Discrimination – County Level Variables

	Dependent Variable: Discrimination					
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Demographics					
	Black Population Share	White Population Share	German (Ancestry) Population Share	Italian (Ancestry) Population Share	Japanese (Ancestry) Population Share	Log Population
Coefficient of X (see col. heading)	5.351	-5.163	0.233	0.101	0.138	0.301
	(0.177)	(0.175)	(0.016)	(0.008)	(0.085)	(0.009)
Standardized Coefficient	[0.573]	[-0.552]	[0.153]	[0.107]	[0.020]	[0.205]
Observations	2,257	2,257	2,257	2,257	2,257	2,257
R-squared	0.807	0.804	0.75	0.745	0.728	0.823
Adjusted R-squared	0.803	0.8	0.745	0.739	0.722	0.82
Mean X	0.010	0.896	1.723	3.223	0.094	5.735
Std. Dev. X	0.144	0.143	1.724	4.144	0.351	2.228
	Panel B: NAACP, Church and Veteran Status					
	NAACP	Black Church Members	Black WWI Veterans as a Share of Eligible Men	Share of WWII Eligible Black Men Living with WWI Vet	Household Head Veteran	Non-Household Head Veteran
Coefficient of X (see col. heading)	0.108	1.401	-1.166	-0.060	2.321	-0.178
	(0.087)	(0.539)	(0.473)	(1.813)	(0.914)	(0.799)
Standardized Coefficient	[0.017]	[0.071]	[-0.075]	[-0.002]	[0.099]	[-0.008]
Observations	2,257	2,257	2,238	2,249	2,249	2,249
R-squared	0.745	0.746	0.746	0.745	0.745	0.745
Adjusted R-squared	0.74	0.74	0.74	0.739	0.740	0.739
Mean X	0.194	0.076	0.130	0.012	0.063	0.040
Std. Dev. X	0.395	0.039	0.047	0.014	0.026	0.034
	Panel C: WWII, New Deal expenditure and Geography					
	WWII Spending per capita (1,000 Dollars)	New Deal Agricultural Grants per capita (1,000 Dollars)	New Deal - Other Grants per capita (1,000 Dollars)	Distance from Pearl Harbor (1,000 km)	Distance from Germany (1,000 km)	Distance from Japan (1,000 km)
Coefficient of X (see col. heading)	0.155	-7.243	3.026	1.104	-0.089	1.203
	(0.028)	(0.537)	(0.168)	(0.132)	(0.161)	(0.126)
Standardized Coefficient	[0.074]	[-0.270]	[0.197]	[0.566]	[-0.034]	[0.499]
Observations	2,257	2,257	2,257	2,257	2,257	2,257
R-squared	0.731	0.748	0.762	0.736	0.727	0.738
Adjusted R-squared	0.725	0.743	0.757	0.730	0.721	0.732
Mean X	0.588	0.023	0.216	6.946	7.283	10.390
Std. Dev. X	0.666	0.039	0.123	1.109	0.854	0.764

Notes: Observations are at the county level. In Panel C column (2), "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. All regressions are weighed by the 1940 population of eligible men of each race and county. Standardized coefficients are reported in brackets.

B.3.2 Race-Specific Correlates of Discrimination

Finally, we examine the correlates of discrimination that may differ for Black and white men. Appendix Table B.2 presents the correlates separately for Black and white men for all of the variables available to us. At the bottom of each panel, we report the mean

and standard deviation of each variable. White individuals are on average older and more educated than Black individuals. 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. Occupational income scores are lower for Black men than for white men.[74] To account for these notable differences between Black and white men and the fact that their influence on enlistment races over time, the main analysis will control for race-week fixed effects.

More specifically, Appendix Table B.2 documents that, for both Black (Panel A) and white (Panel B) men, discrimination is positively correlated with age (column 1), educational attainment (column 2), the population share in the labor force (column 3), log occupational income score (column 5), the population share employed in manufacturing (column 6); and, negatively associated with the population share employed in farming (column 7). However, the correlations do not always have the same sign for both races. For instance, column (4) shows that the association between discrimination and the employed population share is positive for Black men and negative (albeit statistically insignificant) for white men.[75]

For ease of interpretation, Panel C reports the correlation between the index of discrimination and the white-Black difference for each of the variables just described. We find that in counties with more discrimination, white individuals are older, more educated, more likely to earn higher wages and work in manufacturing. In these counties, Black Americans are instead more likely to work in agriculture. Discrimination is negatively correlated with the white-Black gap in employment and labor force participation.

To account for the fact that the correlates of discrimination can differ by race, and that the influence of these differences on enlistment is likely to change after the U.S. enters the war, the main analysis will control for county-race fixed effects and county-race-specific variables interacted with week fixed effects.

[74] Occupational income scores are the standard measure of lifetime earnings used in the economic history literature when there is no income data (Abramitzky et al., 2014). They are based on the median income of a job category in 1950.

[75] Labor force participation and employment rates are highly correlated, but conceptually different, since not all of those who participate in the labor force are employed at a given point in time. We scale both measures by the number of working-age men.

Table B.2: The Correlates of Discrimination – County-Race Specific Variables

	Dependent Variable: Discrimination						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	X=Age	X=Years of Education	X=Share in Labor Force	X=Share Employed	X=Log Occupational Income Score	X=Share Employed in Manufacturing	X=Share Employed in Farming
				Panel A. Black			
Coefficient of X (see col. heading)	0.094	0.192	1.479	0.687	1.315	0.559	-0.930
	(0.01)	(0.018)	(0.209)	(0.207)	(0.130)	(0.204)	(0.216)
Standardized Coefficient	[0.252]	[0.216]	[0.092]	[0.049]	[0.147]	[0.037]	[-0.045]
Observations	2,257	2,257	2,257	2,257	2,257	2,257	2,257
R-squared	0.753	0.757	0.750	0.745	0.755	0.745	0.746
Adjusted R-squared	0.748	0.752	0.744	0.740	0.750	0.739	0.741
Mean X	27.50	7.386	0.890	0.807	2.833	0.157	0.127
Std. Dev. X	2.756	1.648	0.074	0.101	0.172	0.097	0.112
				Panel B. White			
Coefficient of X (see col. heading)	0.120	0.301	1.882	-0.592	3.878	2.273	-8.103
	(0.01)	(0.017)	(0.516)	(0.455)	(0.128)	(0.182)	(0.318)
Standardized Coefficient	[0.320]	[0.339]	[0.117]	[-0.042]	[0.433]	[0.151]	[-0.396]
Observations	2,257	2,257	2,257	2,257	2,257	2,257	2,257
R-squared	0.705	0.725	0.689	0.688	0.779	0.708	0.758
Adjusted R-squared	0.698	0.719	0.683	0.681	0.775	0.702	0.753
Mean X	31.43	10.66	0.895	0.817	3.198	0.241	0.057
Std. Dev. X	2.624	1.216	0.035	0.048	0.139	0.125	0.061
				Panel C. White - Black			
Coefficient of X (see col. heading)	0.073	0.259	-1.469	-0.821	2.775	0.895	-5.321
	(0.005)	(0.018)	(0.169)	(0.168)	(0.150)	(0.186)	(0.333)
Standardized Coefficient	[0.217]	[0.219]	[-0.106]	[-0.066]	[0.263]	[0.061]	[-0.262]
Observations	2,257	2,257	2,257	2,257	2,257	2,257	2,257
R-squared	0.748	0.750	0.736	0.730	0.764	0.730	0.755
Adjusted R-squared	0.743	0.744	0.730	0.724	0.759	0.724	0.750
Mean X	0.946	1.809	0.0430	0.0872	0.265	0.0714	0.00528
Std. Dev. X	3.870	1.166	0.108	0.113	0.122	0.105	0.0577

Notes: Observations are at the county level. Panel A (resp. panel B) restricts to African Americans (whites). All regressions in panels A and B control for state fixed effects, and are weighed by the 1940 population of eligible men in each county and race. Panel C constructs the gap between African Americans and whites for each of the variable reported in column headings. All regressions in panel C control for state fixed effects, and are weighed by the 1940 population of eligible men in each county. Standardized coefficients are reported in brackets.

C Alternative Measures of Discrimination. Other Races

C.1 Alternative Measurements for Discrimination

In Appendix Table 1, we examine each component variable of our discrimination measure separately, reporting the estimates for the principal components in column (1) to ease comparisons. We find that all coefficients are negative, and the ones for the Democratic vote shares in Presidential (column 2) and Congressional (column 3) elections and for the presence of the KKK (column 4) are statistically significant. In column (10), we run a horse-race, including all individual components simultaneously. Only the coefficient on the Democratic vote share in Congressional elections remains statistically significant at the 5% level. The point estimate on the presence of the KKK remains negative and highly negative, but becomes slightly less precisely estimated, with a p-value of 0.051.

Table 1: The Effect of Discrimination on Black Volunteer Enlistment – Individual Component Measures of Discrimination

	Dependent Variable: # Volunteers per 100,000 Eligible Men									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Discrimination x Black x Post	-2.793									
	(1.178)									
Black x Post x President Vote Share Democrat 1900-1930		-0.176								0.018
		(0.076)								(0.125)
Black x Post x Congress Vote Share Democrat 1900-1930			-0.205							-0.226
			(0.055)							(0.085)
Black x Post x Presence of KKK				-4.920						-3.864
				(1.930)						(2.000)
Black x Post x Number of Lynching up to 1939					-0.087					0.086
					(0.185)					(0.179)
Black x Post x Dissimilarity Index 1940						-3.696				3.308
						(5.312)				(13.690)
Black x Post x Isolation Index 1940							-3.855			-2.932
							(3.828)			(10.424)
Black x Post x Segregation Index 1940								-6.357		-2.922
								(4.864)		(8.630)
Black x Post x Diff. Wage 1940									-0.010	-0.004
									(0.006)	(0.006)
Observations	70,744	70,744	70,744	70,744	70,744	70,744	70,744	70,744	70,744	70,744
R-squared	0.225	0.823	0.823	0.823	0.823	0.823	0.823	0.823	0.823	0.823
Adjusted R-squared	0.224	0.592	0.592	0.592	0.592	0.592	0.592	0.592	0.592	0.592
Mean X	30.360	4.16	4.88	0.04	0.30	0.04	0.02	0.05	38.91	30.36
Std. Dev. X	38.061	16.55	19.49	0.21	2.03	0.15	0.11	0.17	155.3	38.06

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

Then, in Appendix Table 2, we verify that results are robust to defining the discrimination index in different ways. To ease comparisons, column (1) reports the baseline specification. In column (2), we replace the continuous measure of discrimination with a dummy equal to one if the index is above the sample median. In columns (3) and (4), we define the index including, respectively: the number of slaves divided by county population in 1860;

and, the racial gap in the highest number of years of education in 1940.[76] Reassuringly, results remain unchanged also when including simultaneously in the discrimination index both the number of slaves over county population in 1860 and the 1940 county-race specific educational gap (column 5).

Table 2: Robustness Exercises - Discrimination Index

	Dependent Variable: # Volunteers per 100,000 Eligible Men				
	(1)	(2)	(3)	(4)	(5)
	Baseline	Discrimination Dummy	Discrimination with slaves	Discrimination with educational gap	Discrimination with slaves and educational gap
Discrimination x Black x Post	-2.793	-7.995	-2.625	-2.793	-2.810
	(1.178)	(2.521)	(1.164)	(1.178)	(1.239)
Observations	70,744	70,744	70,744	70,744	70,744
Mean Y	30.360	30.360	30.360	30.360	30.360
Std. Dev. Y	38.061	38.061	38.061	38.061	38.061

Notes: Observations are at the race, county and week level. Column (1) reports the baseline specification. Robustness exercises in subsequent columns are noted at the top of each column. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. Column (2) replaces the baseline discrimination index with a dummy equal to one if the discrimination index is above the sample median. Columns (3) and (4) augment the baseline discrimination index with, respectively: the 1860 number of slaves over county population, and the white-Black differential in the 1940 county-level average of the highest number of years of schooling (defined for individuals of age 25 or older). Column (5) includes in the discrimination index both components added in columns (3) and (4). Regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. Standardized coefficients are reported in brackets.

C.2 Effect of Discrimination on Other Non-White Races

Appendix Table 3 presents the baseline estimates with other races. In column (1), we restate the earlier estimate for Black enlistment. Column (2) shows that the triple interaction coefficient changes little when we omit the migration controls. This omission is necessary for when we examine the other races because of data limitations. Column (3) examines the effect of discrimination on Japanese enlistment rates. This is a sample of county-week observations for white and Japanese American men. There are fewer observations because the Japanese American population was much smaller than the Black population and geographically concentrated along the West coast states. Columns (4) and (5) examine the effect of discrimination on Chinese and Native American enlistment. These results indicate that our discrimination measure captures discrimination specifically targeted towards Black Americans. They also suggest that there were no cross-race spillovers for our measure of

[76] Data on the number of slaves are taken from Haines et al. (2010). Since the data does not cover all U.S. states, in column (3), we imputed zeros for counties that were not included. Results are identical when dropping counties with missing observations.

discrimination.

Table 3: The Effect of Discrimination on the Volunteer Enlistment of All Non-White Races

	Dependent Variable: # Volunteers per 100,000 Eligible Men				
	(1)	(2)	(3)	(4)	(5)
	Baseline	No Migration Controls	No Migration Controls	No Migration Controls	No Migration Controls
Discrimination x Black x Post	-2.793	-2.847			
	(1.178)	(1.179)			
Discrimination x Japanese x Post			0.452		
			(2.179)		
Discrimination x Chinese x Post				-0.543	
				(1.195)	
Discrimination x Native x Post					1.669
					(4.033)
Observations	70,744	70,744	8,530	14,944	21,652
R-squared	0.823	0.823	0.999	1.000	0.881
Adjusted R-squared	0.592	0.592	0.999	0.999	0.716
Mean Y	30.360	30.360	32.998	33.991	34.322
Std. Dev. Y	38.061	38.061	30.430	32.437	35.144

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, and population size. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

D Additional Sensitivity Tests

D.1 Distance to Locations of Historical Importance

Appendix Table 1 presents our baseline coefficient in column (1) to ease comparisons. In columns (2) and (3), we consider distance from Tuskegee and from Tulsa.[77] In column (4), we consider the distance from the closest city where a 48er settled.[78] In column (5), we control for the distance from the closest Black refugee camp established during the Civil War.[79] Reassuringly, in all cases, the coefficient of interest remains negative, statistically significant, and close to our baseline (reported in column 1 to ease comparisons).

[77] In June 1941, the 99th Pursuit Squadron, the first African American U.S. Army Air Force, was moved to Tuskegee, where its personnel received the initial training. One may thus conjecture that proximity to Tuskegee may be associated with stronger willingness to volunteer within the Black community. On the other hand, in counties closer to Tulsa, memories of the 1921 massacre may have reduced propensity to enlist among Black men (Albright et al., 2021).

[78] Dippel and Heblich (2021) documents that the historical presence of (emigrated) leaders of the failed 1848-1849 German revolution is associated with stronger support for racial equality in the long run, possibly influencing Black Americans' incentives to volunteer.

[79] Ramos-Toro (2021) finds that refugee camps, established during the Civil War, were conducive to the development of racially-progressive politics, which also persisted over time.

Table 1: The Effect of Discrimination on Black Volunteer Enlistment – Control for Distance to Places of Historical Importance

	Dependent Variable: # Volunteers per 100,000 Eligible Men				
	(1)	(2)	(3)	(4)	(5)
Discrimination x Black x Post	-2.793	-2.829	-2.246	-2.761	-2.887
	(1.178)	(1.254)	(1.253)	(1.161)	(1.179)
Tuskegee x Black x Post		-0.000			
		(0.003)			
Tulsa x Black x Post			0.004		
			(0.002)		
Closest 48ers city x Black x Post				-0.008	
				(0.005)	
Closest Refugee Camp x Black x Post					-0.003
					(0.004)
Observations	70,744	70,744	70,744	70,744	70,744
R-squared	0.823	0.823	0.823	0.823	0.823
Mean Y	30.360	30.360	30.360	30.360	30.360
Std. Dev. Y	38.061	38.061	38.061	38.061	38.061

Notes: Observations are at the race, county and week level. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

D.2 Other Mismeasurement and Specification Issues

In Appendix Table 2, we first check that the baseline is robust to controlling for lagged Black draft enlistment rate instead of the contemporaneous measure (column 2). This is motivated by anecdotal accounts from WWI that local conscription depended on local volunteer enlistment Murray (1971). We are not aware of this being true for WWII, but we conduct this check out of an abundance of caution. In column (3), 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 an enumeration mistake on the part of the Army recruiter who may mistake mixed race men for white.[80] We address

[80]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.

this potential issue by controlling for the county-specific rates of race change from Black to white in the 1930 and 1940 U.S. population censuses estimated by Dahis et al. (2019) interacted with the Black and the post-Pearl Harbor dummy variable.[81] In column (4), we replicate the analysis by omitting the states for which Army boards did not receive complete information from Service Command 7 (see Section 4). The triple interaction coefficients are statistically precise and similar in magnitude to the baseline.[82]

Next, in column (5), we replicate the results by estimating unweighed regression, and show that the coefficient remains negative and statistically significant, and becomes substantially larger in absolute value. In column (6), we add to our preferred specifications interactions between state dummies, week dummies, and race dummies, to allow for race-state-week specific shocks. Despite the highly demanding specification, the coefficient remains negative (albeit somewhat smaller) and statistically significant. In column (7), we replace the 1930-1940 race-specific net migration rate with one calculated for the 1935-1940 period, which was derived by using information on individuals' reported county of residence 5 years before (in the 1940 U.S. Census).[83] Reassuringly, results are almost identical to those in our baseline specification. Finally, in column (8) we address the possibility that the discrimination index may be correlated with differential exposure to news across races. We augment our preferred specification by interacting week dummies with the race-specific share of households that owned a radio in the county in 1930.[84] Once again, results remain virtually unchanged.

Finally, as already shown above (Appendix C.1), results are robust to defining discrimination in different ways. See Appendix Table 2.

[81] The number of observations is slightly different due to the limited availability of the additional control.

[82] The estimate in column (2) is nearly identical if we control for the draft rate lagged by two or more weeks. They are available upon request.

[83] In particular, for each county, we obtain the number of in- and out-migrants (of either race) between 1935 and 1940. We derive the net migration rate by subtracting the former quantity from the latter, and scaling this number by 1940 county-race population.

[84] We rely on the 1930 U.S. Population Census because individuals were not asked about radio ownership in 1940.

Table 2: Additional Robustness Exercises

	Dependent Variable: # Volunteers per 100,000 Eligible Men							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline	Controlling for Lagged Draft Rate	Controlling for Passing rate	States with Incomplete Information	Unweighted	Controlling for State x Week x Race FEs	Controlling for Net Mig. Rate 1935-40	Cotrolling for Radio Ownership
Discrimination x Black x Post	-2.793	-2.793	-2.766	-3.067	-7.826	-1.943	-2.973	-2.773
	(1.178)	(1.177)	(1.180)	(1.200)	(3.855)	(0.943)	(1.178)	(1.167)
Observations	70,744	70,744	65,172	61,220	70,744	70,744	70,744	70,432
Mean Y	30.360	30.360	30.142	30.331	23.506	30.360	30.360	30.346
Std. Dev. Y	38.061	38.061	36.760	37.754	552.356	38.061	38.061	38.008

Notes: Observations are at the race, county and week level. Column (1) reports the baseline specification. Robustness exercises in subsequent columns are noted at the top of each column. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. Column (2) controls for the one-week lag draft rate (for each county-week-race). Column (3) includes interactions between week and Black dummies and the county-specific rates of race change from Black to white in the 1930 and 1940 U.S. population censuses estimated by Dahis et al. (2019). In column (4), the excluded states are: Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming. Column (5) replicates the baseline specification without weighing observations. Column (6) adds state x week x race fixed effects. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Column (7) replicates the baseline with the 1935-1940 (rather than 1930-1940) race-specific net migration rate. Column (8) replicates the baseline specification by adding radio ownership among Black and white households in 1930. Regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

D.3 Spatially and Serially Correlated Standard Errors

In Appendix Table 3, Panel A, we consider the possibility of spatially correlated errors. In columns (2) and (3), we estimate alternative standard errors using the Conley adjustment with spatial cutoffs of 2,000km or 3,000km. In column (4), we cluster standard errors at the commuting zone rather than county level. The triple interaction is statistically significant at the 1% level with all of the adjustments. Then, in columns (5) to (7), we report results with spatial HAC errors using different spatial lags (2 lags, 7 lags, and 14 lags, respectively). To correct for heteroskedasticity and serial correlation in the error term, we use the Newey–West estimator, defining the number of lags following Greene (2012). In particular, we consider the integer approximate of $T^{(1/4)}$, where T is the total number of weeks. Thus, in column (5), we set the spatial HAC lag parameter equal to 2. Reassuringly, results are unchanged when using different values for the number of lags (columns 6 and 7).

D.4 Outliers

In Appendix Table 3, Panel B, we examine the sensitivity of our estimates to outliers. In column (2), we omit outliers as defined by Cook's Distance. In columns (3) and (4), we estimate the baseline specification on a sample where we omit observations with the highest and lowest 1% values of volunteer rates and discrimination. In columns (5) and (6), we windsorize these observations instead of omitting them. The estimates are statistically similar to the baseline sample, which is re-stated in column (1).

Table 3: Alternative Standard Errors and Robustness to Outliers

	Dependent Variable: # Volunteers per 100,000 Eligible Men						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Baseline	Conley Adjustment Spatial cutoff: 2000km	Conley Adjustment Spatial cutoff: 3000km	Cluster at the Commuting Zone Level	HAC - 2 lags	HAC - 7 lags	HAC - 14 lags
	Panel A.						
Discrimination x Black x Post	-2.793	-2.793	-2.793	-2.793	-2.793	-2.793	-2.793
	(1.178)	(0.741)	(1.024)	(1.276)	(0.632)	(0.694)	(0.786)
Observations	70,744	70,744	70,744	70,744	70,744	70,744	70,744
Mean Y	30.360	30.360	30.360	30.360	30.360	30.360	30.360
Std. Dev. Y	38.061	38.061	38.061	38.061	38.061	38.061	38.061
	Panel B.						
	Baseline	Omit Cook's Distance Outliers	Omit if Volunteers 1st/99th pct	Omit if Discrimination 1st/99th pct	Winsorize Volunteers 1st/99th pct	Winsorize Discrimination 1st/99th pct	
	(1)	(2)	(3)	(4)	(5)	(6)	
Discrimination x Black x Post	-2.793	-2.050	-2.067	-3.704	-2.469	-3.478	
	(1.178)	(0.696)	(1.033)	(1.437)	(1.118)	(1.219)	
Observations	70,744	66,938	68,364	69,260	70,744	70,744	
R-squared	0,225	0.971	0.955	0.826	0.950	0.823	
Adjusted R-squared	0,224	0.933	0.896	0.599	0.886	0.592	
Mean Y	30.360	27.284	28.186	30.335	29.740	30.360	
Std. Dev. Y	38.061	33.192	29.052	37.923	31.831	38.061	

Notes: (Panel A) Observations are at the race, county and week level. Column (1) reports the baseline specification. Robustness exercises are noted at the top of each column. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. (Panel B) Observations are at the race, county and week level. Sample restrictions are stated in the column headings. All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level.

E Heterogeneity

Appendix Table E.1 examines the heterogeneous effects of discrimination. We split the sample according to factors that might exacerbate or moderate the discouragement effects of discrimination as motivated by the historical literature. 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) splits the sample into counties that are outside the South (Panel A) and within the South (Panel C). Column (2) divides counties into those without (Panel A) and those with (Panel C) a local NAACP chapter. The remaining columns split the sample into counties that are below (Panel B) and above (Panel D) the sample median of the Black Church membership rate in 1936 (column 3), distances from Pearl Harbor (column 4) and Germany (column 5), the number of years the state had been part of the United States (column 6), the share of Black men eligible to serve in WWII living in a household headed by a WWI veteran (column 7), distance from the closest military base (column 8), urban population share (column 9), and the share of Black households that in 1930 owned a radio (column 10).[85]

Only the estimates in columns (4) and (5) are statistically different from each other. They show that the effects of discrimination are larger in counties further away from Pearl Harbor and closer to Germany. Since distance from Germany is negatively associated with distance from Pearl Harbor, both results suggest that the immediacy of danger from the Pearl Harbor attack moderated the discouragement effect of discrimination.

These estimates show that, with the exception of physical distance to Pearl Harbor, the effects of discrimination are fairly similar across the United States.

In Appendix Table E.2, we estimate heterogeneous effects for counties above and below the median of the German (column 1), Italian (column 2), and Japanese (column 3) population share. The effects of discrimination are somewhat more negative in counties with a higher (resp., lower) share of Italians and Germans (resp., Japanese), likely reflecting the geographic distribution of the groups, further from (resp., closer to) Pearl Harbor. When considering the three groups together (column 4), the effects of discrimination are larger in counties below the median. The estimates are not statistically different across sub-samples.

[85] Results are virtually unchanged when performing the sample split considering radio ownership among whites or all households in the county.

Table E.1: The Effect of Discrimination on Black Volunteer Enlistment – Heterogeneous Effects

	Dependent Variable: # Volunteers per 100,000 Eligible Men									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	X=South	X= NAACP Chapter in 1940	X=Black Church in 1936	X=Distance to Pearl Harbor	X=Distance to Germany	X=Years in the Union	X=WWI Vet HH Head	X=Distance from closest Military Base	X=Urban Share in 1940	X=Black Radio Ownership in 1930
	Panel A. X=0		**Panel B. X < Median Values**							
Discrimination x Black x Post [1]	-2.209	-2.415	-4.662	0.352	-4.907	-2.239	-3.318	-2.419	-1.087	-2.225
	(2.208)	(1.311)	(2.772)	(1.875)	(1.602)	(1.370)	(1.770)	(1.805)	(1.478)	(1.442)
Observations	30,964	64,268	29,760	34,036	35,744	35,484	34,476	36,220	34,932	35,180
R-squared	0.792	0.799	0.828	0.821	0.824	0.815	0.700	0.876	0.773	0.842
Adjusted R-squared	0.516	0.536	0.601	0.584	0.593	0.570	0.304	0.714	0.473	0.634
Mean (Main Regressor)	-0.005	0.196	-0.007	0.138	0.036	0.086	0.264	0.092	0.269	0.413
Std. Dev. (Main Regressor)	0.125	0.749	0.123	0.675	0.325	0.505	0.865	0.529	0.812	1.012
	Panel C. X=1		**Panel D. X > Median Values**							
Discrimination x Black x Post [2]	-1.570	-2.371	-2.338	-4.391	-0.127	-0.685	-2.183	-2.411	-2.700	-1.964
	(1.423)	(2.548)	(1.278)	(1.156)	(1.479)	(1.544)	(1.526)	(1.228)	(1.558)	(1.753)
Observations	39,780	6,476	31,136	36,708	35,000	35,260	36,052	34,524	35,812	35,252
R-squared	0.874	0.914	0.880	0.826	0.824	0.835	0.898	0.764	0.836	0.814
Adjusted R-squared	0.708	0.792	0.722	0.597	0.592	0.615	0.763	0.453	0.620	0.570
Mean (Main Regressor)	0.377	-0.008	0.283	0.091	0.260	0.124	0.058	0.145	0.076	0.032
Std. Dev. (Main Regressor)	0.998	0.124	0.882	0.514	0.889	0.628	0.440	0.680	0.516	0.367
	Panel E. Difference in Coefficients -- Panel A vs. Panel B									
[1] − [2] p-value	0.860	0.997	0.479	0.019	0.042	0.468	0.638	0.997	0.535	0.927

Notes: Observations are at the race, county and week level. Sample restrictions are stated in the column headings (X is the variable with which the sample is cut). All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. See Appendix B for more details on the construction of WWI Veterans.

Table E.2: Heterogeneity, by Ancestry Composition

	Dependent Variable: # Volunteers per 100,000 Eligible Men			
	(1)	(2)	(3)	(4)
	X=German (Ancestry) Population Share	X=Italian (Ancestry) Population Share	X=Japanese (Ancestry) Population Share	X=German, Italian, and Japanese (Ancestry) Population Share
	Panel A. X < Median Values			
Discrimination x Black x Post [1]	-1.655	-1.405	-2.763	-3.765
	(1.355)	(1.574)	(1.395)	(1.517)
Observations	36,396	35,724	51,080	36,324
R-squared	0.857	0.810	0.786	0.817
Adjusted R-squared	0.792	0.722	0.597	0.592
	Panel B. X > Median Values			
Discrimination x Black x Post [2]	-2.482	-2.148	-2.407	-1.498
	(1.941)	(1.461)	(1.822)	(1.489)
Observations	34,348	35,020	19,664	34,420
R-squared	0.809	0.828	0.855	0.826
Adjusted R-squared	0.556	0.602	0.661	0.595
	Panel C. Difference in Coefficients -- Panel A vs. Panel B			
[1] − [2] p-value	0.7895	0.7631	0.9369	0.3559

Notes: Observations are at the race, county and week level. Sample restrictions are stated in the column headings (X is the variable with which the sample is cut). All regressions include county-week fixed effects, race-week fixed effects, and week fixed effects x county-race variables from the U.S. 1940 Census: labor force participation, employment, education, age, occupational income scores, the share of employment in manufacturing and farming, population size, and past migration rates. The regressions include all lower order interaction terms and are weighed by the 1940 population of eligible men in each county and race. Standard errors are clustered at the county level. See Appendix B for more details on the construction of WWI Veterans.

F All Races

To enrich our understanding of the role of discrimination in WWII military enlistment, we examine the patterns of volunteer enlistment for all other racial groups identified by the NARA dataset. For consistency with the main analysis, we focus on the 48 mainland states during the eight weeks before and after Pearl Harbor. Appendix Figure F.1 plots volunteer enlistment rates for all races that our data allow us to identify – white, Black, Native American, Japanese, and Chinese.

That enlistment was the lowest for Black men is consistent with the fact that they probably faced the most severe discrimination during this period. Chinese and Japanese Americans faced similar and significant discrimination in U.S. society prior to the war.[86] But historians have argued that since the attack came from Imperial Japan, Japanese Americans may have volunteered at high rates during the early part of the war to prove their loyalty to the U.S. or to avoid retaliation.[87] Since the Chinese did not need to make such gestures, these

[86] See Soennichsen (2011) for a detailed discussion.

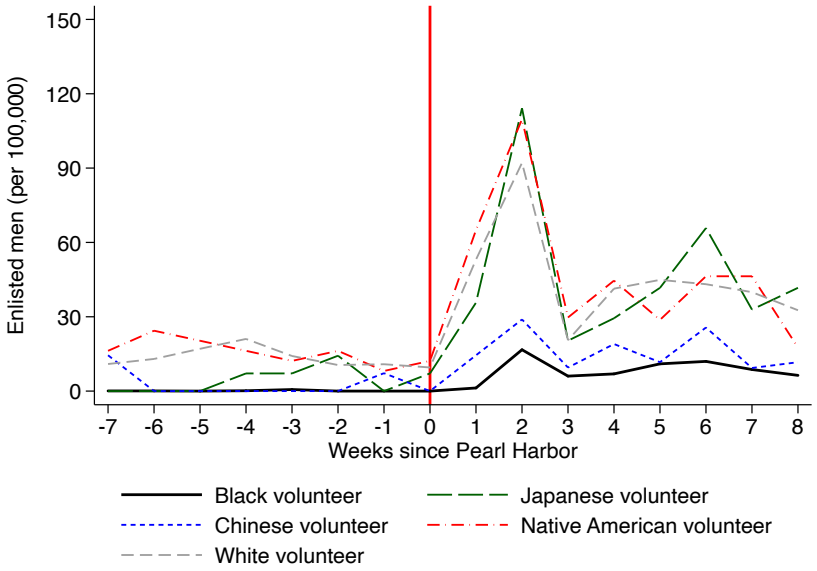
[87] Saavedra (2018) shows that Japanese-Americans born right after Pearl Harbor had more American sounding names, relative to kids born just a few days before, as Japanese-American parents responded to concerns about heightened anti-Japanese sentiments.

perceptions are consistent with Chinese enlistment being in between Black and Japanese enlistment rates.

It is interesting to note that Native American enlistment rates after Pearl Harbor were similar to white (and Japanese) enlistment rates given the severe discrimination they had suffered. This is likely to be due to several factors. The first is economic. 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). The second was social and political. Native American soldiers were not segregated or subject to different policies than white soldiers, and mainstream U.S. culture at the time, as reflected by outlets such as Hollywood films, promoted Native Americans as an embodiment of American identity across the country (Bernstein, 1986).

In summary, the relative increase in enlistment rates after Pearl Harbor seem consistent with the incentives faced by each group during this period.

Figure F.1: Volunteer Enlistment for All Races



Notes: The figure plots enlistment rates over time for white, Black, Japanese, Chinese, and Native American volunteers.