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February 15, 2024

WP 2024-06

<https://doi.org/10.21033/wp-2024-06>

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Abstract

Does education lead to political engagement? The empirical literature is mixed. Theory suggests economic context matters. Individuals unable to take advantage of education in the labor market are more likely to engage in political activity. We find support for this channel during the rapid expansion of NAACP branches in the South around WWII. Branch growth was stronger where Black workers were denied returns to schooling due to Jim Crow occupational discrimination. We further show that a pre-1931 large-scale school construction program caused greater NAACP activity during the 1940s and 1950s when many former students were in their prime working years.

Keywords: education, human capital, social returns to education, NAACP, Rosenwald Schools, civil rights, civil rights movement, political participation

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A question of long-standing interest is the extent to which the social returns exceed the private returns to education (e.g. [Marshall \(1890\)](#), [Lucas \(1988\)](#), [Acemoglu and Angrist \(2000\)](#), [Moretti \(2004\)](#), [Lochner \(2011\)](#)). We focus on one potential societal benefit from greater investment in education, namely increased engagement during the early stages of large-scale political movements.

Social scientists and political theorists have proposed several channels by which education may impact political engagement. Schooling provides the skills and knowledge that could lower barriers to gathering and processing news and information needed to vote or join a political organization ([Lipset, 1959](#); [Glaeser, Ponzetto and Shleifer, 2007](#)). Social networks that arise among more well-educated members of society could also lead to increased political activity ([Nie, Junn and Stehlik-Barry, 1996](#)). Yet studies that attempt to identify a causal effect of education on political activity find surprisingly mixed results.¹ One reason for these mixed findings could be that the relationship depends on context, namely the type of political activity and its underlying cost and benefit to a participant. In a series of papers, [Campante and Chor \(2012a,b, 2014\)](#) argue that the *opportunity cost* of participating in political, rather than productive, activity can mediate the link between schooling and political activity. When the opportunity cost is low due to the lack of economic opportunity, for example, it can lead to much greater political engagement, as was arguably the case in the spread of the Arab Spring. The possibility of higher wages from the removal of barriers to labor market returns to education may similarly influence the benefit of political activism.

We revisit this issue in a causal framework through one of the most important political developments in U.S. history, the civil rights movement. We focus on whether educational gains among Black men in the South contributed to the expansion of the preeminent civil rights organization of the first half of the 20th century, the National Association for the Advancement of Colored People (NAACP), and in particular its rapid growth in the South around WWII. Between 1938 and 1946, Southern NAACP branches increased six-fold and the share of Black Americans living in a county with a branch tripled ([Aaronson et al., 2023](#)). That this movement emerged during the era of Jim

¹[Krueger and Malečková \(2003\)](#), [Dee \(2004\)](#), [Milligan, Moretti and Oreopoulos \(2004\)](#), [Sondheimer and Green \(2010\)](#), [Green et al. \(2011\)](#), [Friedman et al. \(2016\)](#) and [Henderson and Chatfield \(2011\)](#) find positive effects while [Kam and Palmer \(2008\)](#), [Berinsky and Lenz \(2011\)](#), [Persson, Lindgren and Oskarsson \(2016\)](#), [Weinschenk and Dawes \(2019\)](#), [Pelkonen \(2012\)](#) and [Bömmel and Heineck \(2020\)](#) find null effects.

Crow, when occupational segregation by race was a defining feature of the South (e.g. [Margo \(1990a\)](#), [Heckman and Payner \(1989\)](#), [Wright \(1999\)](#)), makes for an ideal setting to explore how institutional factors in the labor market can influence the relationship between education and political activity. The confluence of rising education among Southern Black men in an era of strong labor market segregation closely fits the conditions identified by Campante and Chor.

In the first part of our paper, we directly test whether NAACP branches were more likely to appear in Southern counties where Black men were denied returns to increased schooling due to occupational segregation.² We show that, relative to their observed education and experience levels, Southern Black men were particularly underrepresented in the relatively higher paid operative and kindred worker occupations but over-represented among low-paid farm laborers. We create a proxy for these unrealized returns to human capital through what we call the “income gap.” The income gap compares actual occupational earnings of Southern Black men in 1940 to a counterfactual where their earnings reflect occupational assignments outside the South. To construct the counterfactual, we use the occupational earnings for similarly educated and experienced Black men living outside the South. We conjecture that in counties where the income gap in 1940 is higher (i.e. where occupational segregation is larger), we would expect to see more political activism, via branch growth, during the NAACP’s critical expansion between 1938 and 1946.

Indeed, we find a strong relationship between the income gap and branch growth that is especially large in rural counties. We estimate that a one standard deviation increase in the income gap (\$55 in 1940 dollars) is associated with a 32 percent increase in the number of Southern rural counties with a NAACP branch opening after 1938 and surviving until 1946.³ Although the association between the income gap and NAACP growth is not necessarily causal, the correspondence with the Campante and Chor model is informative. The most likely sources of bias, especially the higher threat of violence against individuals participating in civil rights activism in counties with more discrimination, should attenuate the relationship between low labor market returns and

²We follow previous researchers such as [Card and Krueger \(1992b\)](#), [Margo \(1990a\)](#), [Aizer et al. \(2022\)](#), and [Ferrara \(2022\)](#), who focus on occupation in order to study progress during the World War II era.

³Throughout the paper, we define a county as rural if more than half of its population lives in an area with at most 2,500 residents.

NAACP activity. Moreover, we find no relationship between NAACP growth and an income gap measure for White workers, suggesting that our results are not due to a spurious correlation with characteristics of the local economy.

In the second part of the paper, we utilize one of the largest educational interventions in U.S. history, the construction of the Rosenwald schools, to estimate the causal effects of education on future NAACP activity. Between 1913 and 1931, over 4,000 state-of-the-art schools were built to serve rural Southern Black children. This program emerged through a unique partnership between the noted educator Booker T. Washington and the philanthropist Julius Rosenwald. At its peak, more than a third of school-age Black children living in the rural South could have attended a Rosenwald school. Previous work has shown that the schools significantly narrowed racial gaps in education and test scores, and had notable effects on fertility, health, and crime ([Aaronson and Mazumder, 2011](#); [Aaronson, Lange and Mazumder, 2014](#); [Aaronson et al., 2021](#); [Eriksson, 2020](#)). While there is anecdotal evidence of former Rosenwald students who later became active in the civil rights movement as adults, including Medgar Evers and Congressman John Lewis ([Feiler, 2004](#)), there is no systematic research that we are aware of that tie the schools to local political engagement.

The location of Rosenwald schools is reported at the county level and a key concern is whether the schools tended to be built in counties that differed in ways that also made their residents either more or less prone to engaging in political activity. On the one hand, counties clamoring for schools and with more available funds may have been more civic-minded and therefore more likely to develop NAACP branches even without the schools. On the other hand, the Rosenwald Fund targeted disadvantaged areas that may have been less likely to become politically engaged. Partly to address selection, we start with an event-study specification which exploits the precise timing of the roll out of schools. During and immediately following World War I, there was an initial surge in NAACP branches that occurred before the majority of Rosenwald schools were built. Importantly, we do not observe notable differences in patterns of NAACP activity by whether a county eventually had a Rosenwald school. This allays concerns about whether Rosenwald

counties were either positively or negatively selected based on prior NAACP political activity and serves as an important check on our identification strategy.

To further address concerns about selection bias, we estimate propensity score models with a rich set of largely pre-program characteristics to predict the likelihood of a county having a Rosenwald school. We use the results from this model to remove outlier counties that either had an extremely low or extremely high likelihood of having a school. We also flexibly control for these propensity scores in our statistical models. We show that this approach largely balances our Rosenwald and non-Rosenwald counties in terms of both levels and trends.

We use three approaches to examine the effect of the Rosenwald schools on NAACP activity. First, event study estimates show how effects unfold over the decades following the first Rosenwald school in a county. Unlike most policy analyses, where the expectation is that an intervention should show treatment effects upon impact or with a short lag, it should take many years after a school is built before alumni reach adulthood and begin to engage in political activity. An immediate effect would imply an alternative mechanism, such as the school buildings providing space for community organizing. As expected, we find the effects take years to emerge, and only peak roughly a generation (24 to 35 years) after the first school is introduced in a county when many cohorts of former students would be adults.

Since the burst of NAACP activity occurs during and after World War II and since our main interest is in quantifying the role of schooling in explaining this time pattern, our second approach moves away from event time to outcome time using a difference-in-difference model. These models compare Rosenwald to non-Rosenwald counties without regard for the timing of Rosenwald entry into the county. Our difference-in-difference estimates indicate that there were meaningful causal effects of Rosenwald schools on NAACP activity that only begin to emerge in the early 1940s. We find that these effects appear to be largest in the early 1950s when many former Rosenwald students would be in their 20s and 30s. For example, by 1950, we find that a rural county with a Rosenwald school would have about 0.23 more branches. This implies an effect size of roughly 380 percent relative to the sample mean of 0.06 branches in the rural South in 1938 and suggests

that the presence of a Rosenwald school in a county may explain roughly 40 percent of the more than eight-fold increase in NAACP branches in the rural South from 1938 to 1950.

Our third approach leverages the *intensive* margin of the program and asks whether an increase in coverage (the county share of Black youth in 1931 who could attend a Rosenwald school) leads to an increase in NAACP branches in later years. This "dose-response" function could identify whether more schools in a county leads to larger effects. Prior to 1938, there is no association between Rosenwald coverage and NAACP branches, consistent with our other specifications. A significant relationship only emerges during the 1940s and grows larger with time, peaking in 1956, the final year in our analysis and around the beginning of the classical civil rights movement.⁴ We find that, by 1956, a 10 percent increase in Rosenwald coverage in a county leads to a 3 percent increase in the likelihood of an NAACP branch. The intensive margin effect of schooling displays a more gradual increase, appearing earlier and growing consistently over time, relative to the extensive-margin results for the presence of any Rosenwald school. We conjecture that related but distinct mechanisms govern the effect of the presence of Rosenwald-educated individuals during the period of rapid change in the early 1940s versus the accumulation of local human capital, represented by coverage of the Rosenwald schools multiplied by the number of cohorts of age to have attended these schools. We discuss these issues further in the results and discussion sections.

Ideally, we would directly link the Rosenwald analysis to our income gap analysis. However, this is empirically challenging. The human capital measures in our income gap are necessarily confined to years of education and age due to data limitations, while [Aaronson and Mazumder \(2011\)](#) show that two-thirds of the impact of Rosenwald schools on human capital occurred through school quality improvements.⁵ Nevertheless, there is indirect evidence linking the two analyses. Specifically, [Mohammed and Mohnen \(2021\)](#) show that despite increasing education, the Rosenwald program did not lead to significant income gains precisely because of occupational discrimination in the Jim Crow South. The limited returns to education are consistent with a rise in the demand

⁴After 1956, many Southern states target the NAACP with retaliatory action or outright bans, while other civil rights organizations, such as the Southern Christian Leadership Conference, take important leadership roles in the movement.

⁵We discuss how school quality might impact our income gap analysis in [section 2](#).

for political change described in [Campante and Chor \(2012b\)](#).

Our work contributes some of the first causal evidence of a large-scale educational intervention on the formation of a political movement. A nascent literature in economics studies the growth of the NAACP and the emergence of the civil rights movement ([Aaronson et al., 2023](#); [Ang and Chinoy, 2023](#); [Cook et al., 2023](#); [Koch, Logan and Parman, 2021](#); [Dippel and Hebllich, 2021](#); [Calderon, Fouka and Tabellini, 2022](#); [Cascio and Lewis, 2022](#); [Donohue, Heckman and Todd, 2002](#)).⁶ Of particular note, [Ang and Chinoy \(2023\)](#) analyze NAACP membership growth in the post-WWI era, finding WWI veterans were more likely to be NAACP members, especially in urban counties outside of the South where racial animus was lower. We view our setting, the rural South, as especially salient because political activity was highly costly. Black men in the rural South faced severe discrimination and oppression, and undoing these barriers required deep changes to society that ultimately led to the emergence of the classic civil rights movement. As we discuss in the next section, our focus on branch growth in the 1940s is driven by the historical record that suggests branches were appearing because of grassroots demand for political change and not from a shift in policy by the national NAACP office. Unlike in previous decades, NAACP branches played a role during the 1940s and 1950s in local activities such as voter registration drives and efforts to secure public sector employment for Black workers.

We also contribute to a large literature on the educational progress of Black Americans and the closing of economic gaps, a small sampling of which includes [Welch \(1974\)](#), [Smith \(1984\)](#), [Margo \(1990b\)](#), [Donohue and Heckman \(1991\)](#), [Card and Krueger \(1992b\)](#), [Aaronson and Mazumder \(2011\)](#), [Bayer and Charles \(2018\)](#), [Derenoncourt \(2022a\)](#), and [Althoff and Reichardt \(2022\)](#).

⁶A related literature, including [Campante and Chor \(2012a\)](#), [Campante and Chor \(2012b\)](#), [Madestam et al. \(2013\)](#), [Cantoni et al. \(2016\)](#), [Bloom et al. \(2019\)](#), and [Bursztyn et al. \(2021\)](#), study the emergence of other global political movements.

1 NAACP: Historical Background and Data

1.1 Historical Background

Attempts to organize civil rights groups, at least beyond Black churches, were broadly unsuccessful in the aftermath of reconstruction. One prominent and especially relevant example was the Niagara Movement, founded by W.E.B. DuBois and other Black activists in 1905. Financial challenges and internal discord led to its disbandment within three years. Soon thereafter, in 1909, DuBois and a biracial and well-connected group of civil rights leaders founded the NAACP.⁷

From its origin, the NAACP was committed to fighting racial discrimination and segregation through a variety of channels. Starting as early as the mid-1910s, many of its principal successes were achieved through the courts. To take one example studied by economists, a series of notable lawsuits forced local school districts to equalize Black and White teacher pay in the 1930s, which [Donohue, Heckman and Todd \(2002\)](#) and [Cascio and Lewis \(2022\)](#) show lowered racial gaps in access to quality schools. These legal, as well as legislative and national public outreach, efforts were developed and coordinated through the NAACP's national headquarters and law office.

Still, organizational leaders made plans early on to establish local branches throughout the country. The principle reason to do so in the early years was to raise funds. For many years, half of the annual \$1 member dues collected by local branches were sent to the national office, with the remaining half used to fund local operations and organize events and activities. Another reason for a network of local branches was to encourage and propagate grassroots political activity. As we describe below, there was disagreement among NAACP leaders about the non-pecuniary role of the branches, and that led to tension and ultimately some change.

The size of the branch network went through three distinct phases. Before 1918, the few branches that existed were primarily in large Northern cities; according to [Kellogg \(1967\)](#), a rural branch did not open until 1918 in Falls Church, Virginia. The first major push occurred during

⁷For a detailed history of the NAACP, see [Kellogg \(1967\)](#), [Meier and Bracey \(1993\)](#), and especially [Jonas \(2005\)](#) and [Sullivan \(2009\)](#). The Library of Congress provides a useful sketch of key NAACP people and events at www.loc.gov/exhibits/naacp/.

WWI, when the NAACP was able to take advantage of the energy created as Black soldiers returned from the War ([Ang and Chinoy, 2023](#)). In total, 221 new branches opened during this membership drive, comprising 75 percent of the 295 active branches at the end of 1919 and nearly all of the 155 active branches in the South.

The second phase was a long period of retreat and stagnation. After the surge following WWI, the NAACP struggled to maintain a local presence in many areas, especially the rural South. New branches appeared nearly every year, but were more than offset by exit ([Figure A.1](#)); indeed, the half-life of a county branch was only 2 to 5 years during the 1920s ([Aaronson et al., 2023](#)). Consequently, the number of Southern branches and the fraction of Black Americans living in a county with a branch declined notably during the first half of the 1920s and remained below 1919 levels through 1938 ([Figure 1](#)). Branch membership dues fell to only \$16,932 in 1933, only slightly more than the organizations' budget of \$15,000 in 1915 and a third of the total annual budget in the early 1930s ([Jonas, 2005](#)).⁸

Throughout these first two phases, and especially up through the 1920s, the threat of political violence in the South (e.g. [Tolnay and Beck \(1995\)](#)) greatly limited the scope of local action. Consequently, branches tended to concentrate on monitoring lynchings and other violence against Black Americans, reports of which served to identify cases of interest for the legal defense arm of the NAACP ([Jonas, 2005](#)). While branches were involved in periodic boycotts and protests, perhaps most famously over the screening of the 1915 film *Birth of a Nation*, local participation in the NAACP's national political actions, such as the seminal campaign against the nomination of Justice John J. Parker in 1930, was limited ([Jonas, 2005](#)).⁹

The third phase, which we focus on, begins in the late 1930s and gains steam in the early 1940s. Legal victories, powerful in principle but constrained by the realities of enforcement, began to pile up, and the growing power of the national office was matched by a surge in the reach and scope of

⁸Long-time Director of Branches Robert Bagnall was dismissed from his position in 1931 due to declining branch revenues. The NAACP Directors of Branches was the individual responsible for corresponding with local branches, facilitating interaction between the local branches and national office, and traveling to localities to aid membership drives and revive lapsed branches.

⁹Additionally, [Ang and Chinoy \(2023\)](#) find that NAACP membership did not improve labor market outcomes of members during the post-WWI era.

local support. In under a decade, the number of Southern branches grew sixfold, those in the rural South grew more than eightfold, and branches outside the South nearly doubled.¹⁰ The half-life of a branch that opened in the late 1930s rose to over 15 years.

We interpret the dramatic growth in NAACP branches, especially in the rural South, as reflecting local demand for political activism towards desegregation and not due to a policy change by the national office. This interpretation is based on the historical evidence, especially the writings of NAACP field workers and the internal political dynamics of the NAACP. Ella Baker, a legendary figure in the civil rights movement, took over as Traveling Secretary in 1938 and Director of Branches in 1943. Baker's correspondence describe an unfailing belief in the importance of grassroots support for the organization, which she did not believe had been reciprocated by national leadership.¹¹ Her letters express the desire of local Black communities for better jobs and schools, an end to barriers to Black voting and participation in public life, as well as the frustrations that these communities faced in finding an outlet for these demands and the role that branches could play in improving local conditions. Baker specifically cited "getting a new school building, registering people to vote, getting bus transportation" as local branch actions taken as steps on the way to "full economic security and civic equality for which we are all striving" (Sullivan (2009), p. 263). Sullivan (2009) provides such examples, of local branches advocating for Black mail carriers, police officers, and schoolteachers, running voter registration drives, creating citizenship training programs and reading and writing classes, advocating for bus transportation access to Black neighborhoods, investigating work conditions in local defense plants, and changing school curriculum to be better aligned with local labor markets. As Frederic Morrow noted, "People seeking redress were signing up (as members of the NAACP) with gusto" (Sullivan (2009), p. 267).

The historical evidence suggests no major shift in the national NAACP strategy towards the branches that could explain the explosive growth around WWII. Indeed, the national office and NAACP President Walter White rejected Baker's views, continuing to see the branches primarily

¹⁰A dormant phase followed by a sudden burst of activism is a common pattern of development among mass political movements, see e.g. (Kuran, 1989).

¹¹Baker's writings can be found in the NAACP Collection at the Library of Congress, Boxes II:A572 and II:A573. A powerful example is in Appendix A.6.

as a source of fundraising for coordinated action at the national level (Sullivan, 2009).¹² As late as 1945 and 1946, Baker was still lamenting national leadership's lack of attention to the branches and how they could be used to capitalize and expand on the groundswell.¹³ As such, we interpret the presence of a branch, at least during this period, as a signal of heightened demand for local political activism in the face of racial inequities.

Historians and social scientists have suggested several plausible explanations for an increase in demand for political change around WWII.¹⁴ First, the constant threat of political violence faced by Black communities well into the early 20th century (e.g. Tolnay and Beck (1995) and Jonas (2005))¹⁵ receded as many young White men who traditionally served as the enforcers of the racial hierarchy in the South left to serve in the military (e.g. Ferrara (2022)). Racial tensions may have also been reduced by wartime messaging that encouraged national unity and other shifts in attitudes related to the War (Sitkoff, 1971).¹⁶ Second, many Black WWII soldiers grew disillusioned after having fought for freedom overseas only to continue to experience discrimination and lack of opportunity upon their return home (e.g. Litwack (2009)). Third, some researchers have noted the War's impact on labor demand (see Garin and Rothbaum (2022) and cites within). The theoretical effect of a labor demand shock on political activism is ex-ante ambiguous. An increase in wages could lead to a reduction in the amount of time spent on political activity (a substitution effect). However, an increase in resources from higher wages also has an offsetting income effect that could lead to an increase in political activity.¹⁷ In addition, pre-existing local patterns of political activity, e.g. the Communist Party, social networks, and especially the Black churches (Morris and

¹²In 1941, Baker and Frederic Morrow prepared the Morrow-Baker report, calling for, Sullivan writes, "deliberate and sustained investment at the base of the organization around the needs and strengths of individual communities. Walter White was impatient with this line of thinking.... (and) disregarded the report." (Sullivan (2009), p.261).

¹³See Baker's letters at the Library of Congress (NAACP Collection, Boxes II:A572 and II:A573.)

¹⁴See Jonas (2005) and (Sullivan, 2009), as well as Aaronson et al. (2023) for a discussion of the literature.

¹⁵Jonas (2005) writes: "Given the violence-charged atmosphere pervading Southern society during the 50 years between 1882 and 1932, it should not be difficult to comprehend how dangerous it was for Negroes to undertake *any* form of political activity, especially in the South, including the elementary act of registering to vote."

¹⁶However, see Mormino (1994)'s description of racial tensions at Florida's military bases and surrounding towns during the War and the NAACP's involvement in these situations. Mormino also notes that Black servicemen, especially those born in the North, helped lead the fight against Jim Crow at the local and state levels.

¹⁷The desire to secure defense jobs motivated local branch activities, as when local NAACP branches played an important role in investigating conditions at defense plants in Nashville and Memphis and advocating for defense training courses in Knoxville (Sullivan (2009)).

Robinson, 1996; McAdam, 1999), could have been contributing factors.¹⁸

Branch growth continued through the mid-1950s and the organization’s crowning legal achievement, *Brown v. Board of Education* in 1954. At that point, nearly 90 percent of urban Black residents and two-thirds of rural Black residents lived in a county with a NAACP branch. After *Brown*, many Southern states took action against the NAACP, including outright bans in Louisiana and Texas. The success of the organization also led to the formation of several competitors, including the Congress of Racial Equality and Martin Luther King’s Southern Leadership Conference. A combination of forces ultimately led to some dwindling popularity of the NAACP, and by the 1960s, it was only one of many organizations in the civil rights movement.

1.2 Data

The NAACP branch data were collected from the historical administrative files of the NAACP’s national office, which are housed at the Library of Congress. The 1919 to 1938 data are taken from annual lists recording branch names (i.e. county).¹⁹ For certain years, data are also available on number of members and dues collected but these tend to be sporadically assembled and noisy. Therefore, we focus most of our attention on the presence and number of branches. After 1938, we were able to locate complete annual reports on local branches for 1942, 1946, and most years from 1950 to 1956. The geographic spread of the NAACP over time is shown in [Figure 2](#).

2 Black-White Occupation Gaps and NAACP Branch Activity

Our empirical strategies are designed to test the connection between human capital accumulation, labor market returns, and local political activity in the nascent early years of the civil rights move-

¹⁸For modern examples of the importance of social factors in global activism, see [Cantoni et al. \(2016\)](#), [Manacorda and Tesei \(2020\)](#), and [Bursztyn et al. \(2021\)](#). Networks also may have played a role in the Great Migration ([Stuart and Taylor, 2021](#); [Derenoncourt, 2022b](#)).

¹⁹National data on the 1910s is available from a concurrent effort by researchers at the University of Washington, which is available at <https://depts.washington.edu/moves/>.

ment. Our first approach is descriptive in nature. We test whether NAACP branch activity increases more in areas where Black Americans were denied returns to schooling due to occupational segregation. We focus on NAACP growth during the 1938 to 1946 period, when there was explosive momentum in local participation following years of stagnation. The extent of NAACP growth varied widely throughout the South (see [Figure 2](#)), and it is this geographic variation that our statistical model seeks to describe. We focus on occupational standing, both to reflect that Black men were denied access to certain occupations in the Jim Crow South and that occupational discrimination played a role in the suppression of the returns to education (e.g. [Heckman and Payner \(1989\)](#); [Margo \(1990a\)](#); [Mohammed and Mohnen \(2021\)](#); [Ferrara \(2022\)](#)).

To analyze whether the suppression of labor market returns to education is associated with political activism, we correlate branch growth in Southern counties to the prospective increase in income of Southern Black men that would occur under the hypothetical that Southern occupations were racially integrated to the same extent as in the non-South. Our counterfactual does not assume political activism achieves race-blind occupational assignment, which did not exist anywhere in the U.S. at the time, but rather that such assignment is the same in the South as outside of it. Changes in regional migration during the Great Migration and then WWII, increases in national radio programming, as well as the exchange of information in the racially-segregated but nationally-integrated military likely all served as conduits for information about regional differences in economic outcomes of Black Americans that would be relevant for considering whether to participate in political activities, like joining the NAACP.

This exercise requires us to construct a hypothetical distribution of occupations for Black men in the South. We focus on men to avoid issues related to labor force participation and family status that strongly influence women's occupations and incomes in this era. We refer to the aggregate difference between the observed and our predicted distribution of occupational employment, weighted by an occupation's predicted income, as the county income gap. This gap reflects the differential returns to human capital for Black men in the South relative to the non-South, and it is what we ultimately associate with NAACP branch growth to measure the reduced form association

between grassroots political activism and labor market discrimination. An important caveat is that we observe years of education and not school quality.²⁰ Below we discuss why we do not think the lack of school quality measures likely impacts our main findings.

The construction of the county income gap requires several steps. First, we run a multinomial logit regression of county-level occupational assignment for all 25 to 50 year old Black men living outside the South using the 1940 full count Census:

$$Pr(Occupation_{ic} = o) = \alpha^0 + \sum_j \alpha_j^1 I[Education_i = j] + \sum_k \alpha_k^2 I[Age_i = k] + \epsilon_i \quad (1)$$

where $Pr(Occupation_{ic} = o)$ is the probability of individual i being in occupation o , and a set of indicator variables, $\sum_j I[Education_i = j]$ and $\sum_k I[Age_i = k]$, reflect years of schooling and age in years as a proxy for potential labor market experience. Occupations are binned into eight groups: professionals and managers, clerical kindred workers, salesmen, craftsmen, operatives and kindred workers, farm laborers and foremen, service workers, and non-farm laborers.²¹ To further support that labor market norms of the South were not part of estimated occupational assignment in our non-South sample, we exclude the border or near-border states of Delaware, West Virginia, and Oklahoma.

Next, for each Southern county with a positive Black population, we subtract the actual share of Black men in occupation o in county c , $\sum_i I[Occupation_{ic} = o]$, from the predicted share of Black men in occupation o in county c , $Pr(\widehat{Occupation}_{ic} = o)$:

$$\Delta Pr(Occupation_{oc}) = Pr(\widehat{Occupation}_{ic} = o) - \sum_i I[Occupation_{ic} = o] \quad (2)$$

where the predicted shares are based on the education and age of Black men in Southern county

²⁰We are aware of some Southern states, but no Northern states, that have school quality measures available at the county level (e.g. Carruthers and Wanamaker (2017); Cascio and Lewis (forthcoming)). Without Northern data, we cannot incorporate school quality measures into our income gap analysis.

²¹We exclude unpaid family workers and farmers and farm managers from the estimation of Equation 1 because of a lack of reliable earnings in the 1940 Census, which we will use to construct weights for our income gap measure. We cannot use occupation-based imputed income scores from Collins and Wanamaker (2022) because their measure does not vary by county.

c and the α coefficients from Equation 1 that mechanically determine occupational assignment of Black men in the non-South. The difference between the predicted and observed shares reflects the degree to which Southern Black men are restricted from occupations that Black men outside of the South would enter with a similar level of human capital.

The eight differenced occupation probabilities are then summed and weighted by the predicted income of each occupation in a given county, to arrive at the county income gap measure, $\widehat{IncomeGap}_c$:

$$\widehat{IncomeGap}_c = \sum_o \Delta Pr(Occupation_{oc}) * \widehat{Income}_{oc}. \quad (3)$$

\widehat{Income}_{oc} is the predicted income of each county-occupation and is computed from a regression of the form:

$$Income_{oc} = \beta_0 + \sum_r \beta_r I[Occupation_o = r] + \sum_s \beta_s I[State_c = s] + \mu ShareRural_c + \eta_i, \quad (4)$$

using all 25 to 50 year old men in the 1940 Census, regardless of race. $\sum_s I[State_c = s]$ is a set of state dummies and $ShareRural_c$ is the share of the county's population that lives in a rural location with less than 2,500 people. We use predicted income, rather than actual income, to weight the county income gap in order to mitigate noise from small county-by-occupation cells. It also allows us to purge potentially endogenous factors like the local share of White workers in an occupation which may be correlated with the local income of Black workers in the same occupation. Lastly, we winsorize $\widehat{IncomeGap}_c$ at the 5th and 95th percentiles.

Table 1 decomposes the occupational pieces that make up the income gap. Rows 1 and 2 report the average observed ($Occupation_{ic}$) and predicted ($Pr(\widehat{Occupation}_{ic})$) share of Black men in each of the eight occupation groups, and row 3 shows the predicted-observed difference. Row 4 reports the mean predicted wage of each occupation in 1940 dollars (\widehat{Income}_{oc}), which is used to weight the occupations into a single income gap measure.

Two occupations stand out. Given their observed human capital, Black men in the South were

significantly underrepresented in operative and kindred worker occupations; only 12 percent of Black workers are in these relatively well-paid jobs, compared to our model's expectation of 19 percent. In addition, Black men are significantly over represented among low-paid farm laborers, an occupation that paid 36 percent less than non-farm laborers and 53 percent below services workers. Consequently, operatives and kindred workers and farm laborers contribute meaningfully to the county income gap.²² These patterns of occupational segregation are consistent with Ferrara (2022), who also finds that Southern Blacks were underrepresented in semi-skilled occupations before WWII.

On average, the 1940 county income gap is economically substantial. The median gap is \$81, around one-fifth of the \$396 median annual salary of a non-White non-farming family in the rural South,²³ suggesting that Black men may have earned roughly 20 percent more if the return to human capital for Black men in the South was similar to that earned by Black men in the non-South. Moreover, while the gap is positive throughout the South (Figure 3), it is especially large in pockets, including Southern Louisiana, Georgia, and parts of Maryland, Virginia, and eastern North Carolina.

2.1 Was Local NAACP Activity Stronger in Counties with Larger Income Gaps?

We find a strong positive correlation between a county's income gap in 1940 and growth in NAACP branches during the early- to mid-1940s in the rural South. The first way we show this is in Figure 4, which plots county-level residualized branch growth between 1938 and 1946 and the 1940 income gap in the rural South. Both measures are adjusted for the average number of NAACP branches between 1915 and 1938 and demographic characteristics from the 1940 Census, including the percent of Black farmers, population size, population density (population divided by land area),

²²The excess of Black men in professional and managerial occupations is more than entirely explained by teachers and clergy. Roughly 37 percent of Southern Black men in professional and managerial occupations in 1940 are teachers and clergy, compared to 14 percent outside the South.

²³Data from 1940 Census summary statistics:<https://www2.census.gov/library/publications/decennial/1940/population-families/41272167ch7.pdf>. For non-White farmers in the rural South, the median salary was \$236.

and urban share. County observations are binned into 20 equal groups.²⁴ The best-fit regression line indicates that an additional \$100 in the income gap (slightly larger than the median gap of \$81) is associated with an additional 0.17 (0.04) branches in a county in the rural South.

This relationship holds in a generalized linear model (GLM) with a Poisson linking function to account for count data:

$$\begin{aligned} \text{Branches}_{c,1946} = & \alpha_0 + \alpha \widehat{\text{IncomeGap}}_c + \beta \text{Branches}_{c,1938} + \gamma_1 \text{AvgBranches}_c + \\ & \gamma_2 \text{BlackFarmers}_{c,1940} + \gamma_3 \text{Pop}_{c,1940} + \gamma_4 \text{PopDensity}_{c,1940} + \\ & \gamma_5 \text{ShareRural}_{c,1940} + X'_c \Omega + \eta_i \end{aligned} \quad (5)$$

Our coefficient of interest, α , is presented in [Table 2](#) using number of branches (Panel A) and presence of a branch (Panel B). We show the results conditioned on the same base set of controls used in [Figure 4](#), as well as with additional controls. These include: WWII measures – the number of public war facilities, the war casualty rate among semi-skilled White men, and the enlistment rate among semi-skilled White men; political controls ([Chay and Munshi, 2015](#)) – indicators for Black senators and representatives during the Reconstruction era, the average Republican vote share (demeaned by national share) between 1868 and 1987, and the average Republican vote share between 1880 and 1916; and other important characteristics of Southern life – plantation share in 1890, cotton share in 1860, Black church share in 1916, Protestant share in 1916, and the timing of the Boll Weevil outbreak.²⁵

Regardless of controls, there is a strong association between the county income gap and county NAACP branch growth in rural Southern counties. Our discussion focuses on number of branches reported in Panel A but is consistent with the results for presence of a branch in Panel B as well. As we gradually add in controls across columns 1 to 3, the estimated coefficient remains around 0.4, with a standard error around 0.1. Using our full set of controls, in column 3, we estimate that a \$100 increase in the income gap (in 1940 dollars) is associated with a 40 percent increase in

²⁴The results are not dependent on the number of bins.

²⁵See [Aaronson et al. \(2023\)](#) for a detailed discussion of predictors of NAACP growth between 1938 and 1946 and, specifically, the role of WWII spending, enlistment, and political background on local civil rights activism.

the number of NAACP branches opening after 1938 and surviving until 1946.²⁶ These estimates are economically large. For example, changing the income gap from the 25th percentile of \$44 to the 75th percentile of \$115 raises the probability of an NAACP branch in the average Southern county by 24 percent. For context, the mean rural Southern county has 0.057 branches in 1938 (Table A.1).

In column 4, we extend our branch growth outcome to 1956 and find a statistically significant but weaker 26 percent effect. We might expect a diminished effect at a longer time horizon, as the economic forces encoded in the 1940 income gap were surely transformed by the dramatic changes in the U.S. economy during and after WWII. Nevertheless, the 1940 income gap continues to have a persistent relationship with NAACP activity well into the 1950s. In column 5, we extend the sample to also include urban Southern counties. The percentage effect is still present but is a bit weaker. The moderated effect likely reflects the higher number of branches in urban counties in 1938 and the greater economic opportunities and higher incomes for Southern Black men in cities.

In the final column of the table, we conduct an important check by examining the association between an income gap for White men and NAACP activity. Specifically, we compute an income gap for White Southern men under the counterfactual that their occupational assignment follows the patterns of assignment for White men outside the South. This is not exactly a placebo check, as local White income gaps are likely related to local Black income gaps, and hence, to NAACP activity. It would be concerning, however, if White income gaps predicted NAACP activity in a similar way to Black income gaps; such a result would be consistent with a race-neutral feature of the local economy, such as local industrial composition, predicting NAACP activity. Appendix Table A.2 shows that the model provides a good fit for White occupation shares, with Southern White men over represented among Professionals and Managers and under represented among Operatives and Kindred Workers, albeit by far less than Black men. In column 6, we find a negative and statistically insignificant relationship between a county's income gap for White men and NAACP growth

²⁶The 0.17 estimate in Figure 4 refers to branch levels, whereas the 40 percent estimate from Table 2 refers to percent growth in branches. A back-of-the-envelope translation would multiply 40 percent by the mean number of branches of 0.45 which equals 0.18.

during the crucial period around WWII. Thus, it appears that NAACP activity occurs in places with specific labor market features affecting Black but not White men.

One concern is whether the lack of data on school quality as a component of human capital, affects our main findings. We do not believe that this is the case. In a simple omitted variables framework, where both education and school quality affect the income gap, but where we only measure education, we would expect that the true income gap would be smaller than what we measure, as some of the gap would be accounted for by school quality. However, if the correlation between school quality and years of education is high (but less than one) then our estimate of α in [Equation 5](#) would remain positive and likely be even larger.²⁷ [Card and Krueger \(1992a\)](#) show that there is indeed a high correlation between years of education and several widely used, but blunt, measures of school quality across states and cohorts during this period. Finally, the lack of a relationship for White men in column 6 also suggests that at least for White men, our results are inconsistent with an economically important role for unmeasured school quality.

3 Rosenwald Schools: Background, Data, and Selection

Our second empirical strategy uses a case study, the construction of thousands of Rosenwald schools in the rural South at the beginning of the 20th century, to identify a causal relationship between human capital investment and political activity.

3.1 The Rosenwald Schools

The Rosenwald School program was designed to tackle the unmistakably inadequate resources provided to Black children in the rural South at the turn of the 20th century.²⁸ In contrast to calls for racial integration from many prominent contemporaneous voices, Booker T. Washington, the Principal of Alabama's Tuskegee Institute, imagined a network of modern schools for rural Black

²⁷The intuition is that Southern Black men are not as poorly off as our model might indicate. This implies that the threshold for political activism (i.e. branch formation) must be lower to explain the correlation reflected by α in [Equation 5](#)

²⁸See [Aaronson and Mazumder \(2011\)](#) and especially [Ascoli \(2006\)](#) and [Hoffschwelle \(2006\)](#) for much more detail.

school children.²⁹ Partnering with Julius Rosenwald, a prominent philanthropist and businessman from Chicago, they began a matching grant program in 1913 to fund schoolhouse construction projects.³⁰ Nearly 5,000 Rosenwald schools were built across 14 Southern states by the end of the program in 1932.

The Rosenwald program represented an increase in school quality as much as an increase in the quantity of completed schooling (Aaronson and Mazumder, 2011). The schools were radically different from what they replaced, featuring modern principles of spacing, lighting, ventilation, and sanitation design that were conducive to learning. In addition, the schools provided adequate equipment (e.g., desks, blackboards, and books), some teacher training (Kreisman, 2017), and longer school terms. Their focus was on primary education but high school instruction, which was virtually nonexistent in the rural South prior to the Fund's involvement, was introduced in 1926.³¹

A variety of papers have shown that exposure to a Rosenwald school had an economically important impact on school attendance, years of completed education, cognitive ability, migration, fertility, life expectancy, and crime (Aaronson and Mazumder, 2011; Aaronson, Lange and Mazumder, 2014; Eriksson, 2020; Aaronson et al., 2023). Yet, Mohammed and Mohnen (2021) find that improvements to human capital had minimal impact on the occupational standing of Rosenwald alumni, at least beyond occupations like storekeepers and teachers with a long history of Black male employment. This is consistent with racially-based occupational discrimination that defined the Jim Crow era and is consistent with the Campante and Chor (2012a) model that unrealized returns to human capital leads to demand for political change.

Our research design takes advantage of two sources of Rosenwald School variation: its roll-out throughout the South during the 1910s and 1920s and substantial across-county variation in the

²⁹Washington believed that the education and economic needs of the Black community had to be addressed before challenging segregation, a view that led to significant conflict with many of his contemporaries, including those at the NAACP.

³⁰Of note, Julius Rosenwald contributed to the NAACP as well during his lifetime, and the Rosenwald Fund was a considerable NAACP donor after Rosenwald's death in 1932, particularly towards the litigation that culminated in *Brown vs Board* (Ascoli, 2006).

³¹To take two extreme examples, according to internal Rosenwald Fund records, Alabama and South Carolina had no accredited four year Black high schools in 1925. By 1932, roughly 500 Rosenwald schools in the South offered at least 2 years of high school instruction (Donohue, Heckman and Todd, 2002).

presence of the schools. The share of Southern rural counties with a Rosenwald school rose from 25 percent in 1919 to 60 percent by 1925. By 1931, roughly a third of Black children in the rural South lived in a county with at least one Rosenwald school. Nevertheless, in most counties the number of schools was insufficient to serve all potential students. [Aaronson and Mazumder \(2011\)](#) estimate that seating capacity had expanded to accommodate, on average, roughly 36 percent of the Southern rural Black school-age population at its peak. The interquartile range of student capacity ranged from just under 20 to over 45 percent, highlighting the substantial across-county variation in access. [Figure A.2](#) reports the geographic distribution of whether a county was ever home to a Rosenwald school or a NAACP branch. There is both considerable county overlap in the two institutions, but also counties with just one or neither.

3.2 Rosenwald Data

The Rosenwald school data comes from the Rosenwald Fund archives housed at Fisk University. Information on individual schools come from index cards used to track construction projects. Each card includes the county, year of construction, size of the building (i.e. number of classrooms), and a breakdown of who paid for construction costs (Rosenwald Fund, local government, Black residents, and White residents). The database includes 4,932 schools in 888 Southern counties, with the capacity to educate students in 13,746 classrooms. See [Aaronson and Mazumder \(2011\)](#) for more details.

3.3 Propensity Score Model of Rosenwald County Selection

Our analysis is primarily, although not exclusively, based on a comparison of counties with and without a Rosenwald school, a design that allows for a clear contrast against which we can detect the slow accumulation of the schools' effects. The usefulness of establishing a clean control from the never treated is emphasized by much of the recent literature on difference-in-differences and related methods ([Goodman-Bacon, 2021](#); [Roth et al., 2023](#)). However, it also introduces concerns about selection into treatment, as the location and timing of school openings were not random.

Indeed, Julius Rosenwald would not invest in a community unless its local citizens matched his Foundation’s contribution.³² On the one hand, such a funding mechanism suggests that students from communities that were particularly open to improving schools for Black children might have experienced better outcomes even in the absence of the Rosenwald program. On the other hand, the Rosenwald Fund targeted highly disadvantaged areas that may have experienced worse outcomes without the schools, and these areas also had high demand for schools.

To address possible bias, we estimate a propensity-score model to control for the evolution of differences between treated and never-treated counties. Specifically, following [Hastie, Tibshirani and Wainwright \(2016\)](#), we estimate a penalized logit model of the probability of ever opening a Rosenwald school, p_c , on an extensive set of pre-Rosenwald variables, their quadratic terms, and their first order interactions.³³

The distribution of the full sample propensity score, p_c , is plotted in [Figure A.3](#). Consistent with selection, the statistical model predicts many counties are highly likely, and highly unlikely, to open a school. Following [Crump et al. \(2009\)](#), we drop those counties, which we define as those with propensity scores below 0.1 or above 0.9. We then re-estimate the propensity score model on the trimmed sample to obtain the final predicted propensity scores \hat{p}_c . Note that the distribution of the trimmed Rosenwald and non-Rosenwald county samples, shown in [Figure 5](#), now overlap in the middle of the unit interval, suggesting a balanced group of counties in the treatment and control groups that we will use for estimation.

Panel (a) in [Figure 6](#) shows that, prior to the late-1930s, NAACP presence in the South was consistently higher in Rosenwald counties, although the trends between Rosenwald and non-

³²The Rosenwald contribution was a matching grant. The Rosenwald Fund contributed about 25 percent of costs in the early years of the program and 10 to 15 percent in the later years and the Fund played a significant role in helping to win financial and nonfinancial support from local White and Black communities ([Hoffschwelle, 2006](#)).

³³The variables are constructed from 1910 full count Census, separately for the Black and White population and include: log urban population, the school attendance rate, the literacy rate, the mean adult occupational income score, mean adult occupational education score, and the ratio of teachers to adults. In addition, we also include the following non-Census measures (with sources): indicators for Black state rep and senator in 1870, the plantation share in 1890, the Black Church share in 1916, the protestant share in 1916 ([Chay and Munshi, 2015](#)), the Republican vote share from 1868 to 1876 and 1880 to 1916 demeaned by the national vote share ([Clubb, Flanigan and Zingale, 2006](#)), the cotton share in 1860 (1900 Census of Agriculture), and distance to Montgomery, Alabama in miles (calculated).

Rosenwald counties were similar.³⁴ Trimming to rural counties with $\hat{P}_c \in [0.1, 0.9]$, panel (b) reports negligible differences in both levels before 1930 and pre-trends, though post-WWII differences stay robust.³⁵ Thus, trimming extreme propensity score counties supports the validity of the research design that uses never treated counties; the lack of observable pre-existing difference in NAACP presence is consistent with quasi-random assignment of Rosenwald schools when conditioning on the propensity score.

4 Results on Rosenwald School Construction and NAACP Growth

We present three related analyses of the relationship between Rosenwald schools and NAACP growth. In the first, we use an event study model to test whether the initial appearance of a Rosenwald school in a county is associated with NAACP activity. In the second, we use difference-in-difference models to compare local NAACP activity in counties that ever built a Rosenwald school to similar counties which never built a school. In the third, we examine how the evolution of NAACP activity differs based on the intensive margin of Rosenwald school coverage in a county. In each, our focus on Southern rural counties mirrors the Rosenwald program footprint.

4.1 Event Study Evidence

The event study framework estimates the time pattern of responses to the initial Rosenwald school opening on later growth of the NAACP in that county. Let e_c denote the year of the first Rosenwald school in county c . The event study model takes the form:

$$Y_{ct} = \alpha_c + \gamma_t + \sum_{k=-1}^5 \beta_k I[t = e_c + k] + \underline{\beta} I[t = e_c - 1] + \bar{\beta} I[t > e_c + 5] + \sum_{m=1}^5 \hat{p}_m \gamma_t + \varepsilon_{ct} \quad (6)$$

³⁴Again, we define a county as “rural” if more than half of its population lives in a place with fewer than 2,500 residents.

³⁵Figure A.4 shows the same plot by whether the county was treated with Rosenwald early vs. late and again demonstrates a similar pattern.

where t indexes 4-year intervals of time, α_c are county fixed effects, and γ_t are time period fixed effects. The $\sum_{m=1}^5 \hat{p}_m \gamma_t$ are interactions between time fixed effects and indicators for quintiles of a propensity score that we estimate to account for extensive margin selection into the receipt of any Rosenwald school (see details in [subsection 3.3](#)). The interactions of indicators of quintiles of \hat{p}_c with time fixed effects allows for flexible, year-specific, semi-parametric controls of remaining observable long-run differences between treated and control counties. The sample includes rural Southern counties with a positive number of Black children aged 7 to 17 in the 1910 to 1930 Censuses.³⁶

An event study is especially useful for understanding temporal patterns and in particular two timing issues that are important in this setting. First, we test whether counties that built schools in the 1920s and early 1930s were more likely places where NAACP branches were operating concurrently. A specific concern is that NAACP branches may have facilitated the openings of schools. If this is the case, the timing of school openings would be positively correlated with pre-existing NAACP branch activity. On the other hand, Rosenwald schools may have been placed in needy areas with a low level or declining trend in the capacity of local Black communities, in which case we may expect a negative association between Rosenwald entry and local NAACP presence. Crucially, we benefit from significant county variation in branch growth during the 1920s ([Figure A.1](#)), which allows us to examine possible pre-trends while also absorbing time-invariant county characteristics through county fixed effects.³⁷

Second, we are interested in effects immediately after the first school is built. In many event study applications, effects that appear immediately after treatment are interpreted as evidence of efficacy. However, in our setting, an immediate effect working through the human capital channel is implausible as treated children are not likely joining an adult organization like the NAACP. For example, we know that schools sometimes operated as community centers ([Reed, 2004](#)); in that

³⁶107 Southern counties are dropped because their geographic boundaries were changed after 1900 and therefore do not represent consistent geographic areas needed for our panel.

³⁷These effects accumulate over time, limiting the relevance of staggered adoption for the econometric model. The difference-in-difference estimates, presented next, effectively collapse the long-run estimates into a single treatment to avoid any role for staggered adoption.

capacity, they might have encouraged branch organization by providing a safe, easily accessible meeting site. While this is potentially an important use of the building, it is not a direct effect of the education provided within. Instead, if education causes political activity, we would expect to see NAACP growth accumulate slowly over time, building as enough former students become politically engaged. This process is likely to take a decade or more after the first school was built in a county.

Figure 7 reports the event study results for all Southern rural counties (Panel A) and the trimmed sample of Southern rural counties with an estimated propensity score between 0.1 and 0.9 (Panel B). For each sample, there is little evidence that initial school construction is correlated with pre-existing NAACP activity. There is a modest increase of 0.03 branches between the 4-year periods before and concurrent with the appearance of the first Rosenwald school in a county, an economically small and statistically insignificant association.³⁸ That effect remains flat and insignificant at around 0.03 for roughly the first decade post construction. A small positive effect could reflect the use of the building as a community meeting site. But regardless, any association between the initial school opening and NAACP activity, is quite modest for the decade before and after the first school is opened and suggests that there is little role for a joint determination of Rosenwald school entry into a county and NAACP activity, and that there is virtually no short-or medium-term impact of the introduction of a school.

Moving further in event time, there are growing effects of the Rosenwald school program on NAACP activity in both samples. Focusing on the trimmed sample, the event study estimates increase with each 4-year interval, reaching 0.06 and 0.07 branches at 12-15 and 16-19 years after the first school is built in a county. Looking at 20 to 23 years after the first school was built, when many cohorts of former Rosenwald students would be in their mid-20s to mid-40s, the counties which received a Rosenwald school have 0.14 additional NAACP branches. The final reported coefficient of 0.23 in Figure 7, 24 or more years beyond Rosenwald's introduction, reflects an unbalanced outer bin of the event study. While the unbalanced nature of the sample implies that

³⁸Standard errors are clustered by county throughout the Rosenwald analyses.

this coefficient cannot be directly interpreted as the effect of school construction at this horizon, the large estimate suggests that effects continued to grow.³⁹ The pattern of NAACP branches growing over time, with the largest increase in later periods, is consistent with an accumulating effect of education as students age and become civically involved, as well as effects growing over time as more cohorts attend the initial and subsequent schools in a county.

4.2 Difference-in-Difference Analysis

While the event study is useful for examining pre-trends and estimating effects on impact, it is not ideal for making longer-run inferences because growth in the 1940s and 1950s are at the edge of the sample and, hence, outside the balanced event window. It is also important to document effects at points in time, as the number of NAACP branches wanes during the 1930s and then grows explosively in the 1940s. To do so, we pool all Rosenwald counties in a difference-in-difference model, setting aside the timing of the first school in order to estimate longer-run effects during the key periods of rapid NAACP growth in the 1940s and 1950s:

$$Y_{ct} = \alpha_c + \gamma_t + R_c \sum_s \delta_s I[s = t] + X'_{ct} \Omega + \varepsilon_{ct}. \quad (7)$$

The coefficients of interest, δ_s , reflect the effect of Rosenwald school presence, R_c , on branch growth, Y_{ct} , over time. Treatment is defined by whether a county ever had a Rosenwald school by 1931, when the program ended. County fixed effects, α_c , and time fixed effects, γ_t , account for persistent differences in counties and the secular trend in branch activity, respectively. X_{ct} include covariates used in estimating the propensity score and the interaction of quintiles of propensity score with period fixed effects. We continue to focus on the trimmed sample of Southern rural counties with propensity scores between 0.1 and 0.9.

³⁹Extending the sample to later years would not solve the problem, as the start of the classic Civil Rights Movement in the late 1950s fundamentally transforms the NAACP and the interpretation of the data. Reactionary policies, such as outright bans of the NAACP, make it difficult or impossible to form counterfactuals for earlier periods using data from this later era. Additionally, the time since Rosenwald first entered a county becomes less relevant several decades after the start of the program, as changes in the national or regional environment, e.g. WWII, become much more important.

We report the results for branch presence and the number of branches in [Figure 8](#). For both outcomes, we cannot reject no effect of a county's Rosenwald status on NAACP activity in the 1920s and 1930s. These results further support the findings from the event study that a county's Rosenwald status and NAACP activity had little relationship during the period of active school construction.

Our primary interest is in outcomes that begin once the earliest sizable cohorts of Rosenwald students, born in the mid- to late-1910s, are in their prime working years. Effects in the late 1930s are still small and statistically insignificant, again, suggestive of a modest or no effect of the schools to that point. But the effects grow during the 1940s, at the time that more cohorts of former students are entering the workforce. Rosenwald counties have 0.040 (0.028) additional branches in 1942. In 1946, a banner year for the NAACP, Rosenwald presence in a county leads to 0.146 (0.078) more branches and an 10.3 (4.6) percent increase in the probability of any branch being present. By 1950, we find that a county with a Rosenwald school has 0.230 (0.062) more branches, on average, and a 14 (4) percent higher probability of having at least one branch. It is noteworthy that the branch effects of Rosenwald grow between 1946 and 1950, as the number of NAACP branches showed little growth after 1946 (see [Figure 1](#)). The pattern of effects is consistent with an expanding influence of education on this political movement throughout the 1940s and not simply a secular increase in NAACP branches immediately after WWII.

The effects of Rosenwald plateau or even slightly diminish after 1950, however. Between 1950 and 1956, branch presence and the number of branches show similarly sized estimates to the 1940s. One possibility is that the end of school construction in 1931 resulted in a slowdown in the impact that Rosenwald schools could have had on human capital by the 1950s. Indeed, [Aaronson and Mazumder \(2011\)](#) show that the Black-White education gap between the North and South roughly closed for cohorts born in the 1940s. The moderating of the effects in the 1950s may also reflect the national stagnation of NAACP growth due to increased membership dues beginning in 1949 and the entrance of new civil rights organizations in the mid-1950s.

[Table 3](#) reports the difference-in-difference estimates, standard errors, and p -values on the joint

significance of the 1946, 1949-1950, and 1955-1956 estimates. We address threats to identification by estimating the model with period fixed effects, the interaction of propensity score quintiles with periods, county fixed effects, and the full set of covariates used in estimating the propensity score. The p -value on the test of significance strongly rejects the null that Rosenwald school presence in a county was not related to NAACP growth between the end of WWII and the *Brown* decision.

Additional results appear in the Appendix. [Table A.3](#) adds results on NAACP membership. We do not focus on this outcome as the data requires significant imputations. Nevertheless, the membership results follow those on branches. An additional 35 NAACP members are present in a county in 1946 as a result of Rosenwald school construction. The effect on membership weakens after 1946, again possibly due to higher NAACP dues. In results not shown, we tested and found little consistent evidence of heterogeneity by whether the county is above or below the median of several key variables: percentage Black children in school and percentage Black population in 1910, Republican vote share in 1868, plantation share in 1890, and percentage slave in 1860. [Figure A.4](#) splits Rosenwald counties into those that received a school before 1927 ("early adopters") and those with a first school after 1926 ("late adopters"). We find that early adopter counties initially had lower levels of NAACP activity in the 1920s but had more NAACP activity post-WWII. This reversal is consistent with counties treated with Rosenwald for longer having a larger effect. Using the propensity score to trim this sample balances levels of NAACP branches in the 1920s but shows the largest growth among early adopters.

4.3 Rosenwald Coverage

Thus far, we have concentrated on the extensive margin—whether a county had a Rosenwald school or not. Next, we move to the intensive margin using an estimate of the share of local Black youth in a county who could attend a Rosenwald school at the program's peak in 1931. Following [Aaronson and Mazumder \(2011\)](#), we compute a county's potential student coverage rate as the number of potential Rosenwald school seats in a county, which is the product of the number of Rosenwald teachers and an assumed average student-teacher ratio of 45, divided by the number of

rural Black children between the ages of 7 and 17 in the county in 1931. The number of teachers is taken from the Rosenwald Fund records and the number of school-age children is from the 100 percent 1930 Census.

We then compute the relationship between NAACP presence in a given year and Rosenwald coverage in 1931 for selected years (1922, 1931, 1938, 1946, 1950, and 1956).⁴⁰ The results are reported as binscatter plots where counties are grouped into 30 Rosenwald coverage quantiles and a dot represents the bin-adjusted average presence and coverage, after accounting for quintile indicators of a county's propensity score of having a Rosenwald school. County observations are weighted by the square root of the average number of Black rural children in the 1910 to 1930 Censuses. We use the same county sample as in our previous analyses. The red line in each panel is the OLS-fitted line.

Figure 9 shows the results. The first two panels again confirms minimal evidence of a relationship between NAACP activity and the Rosenwald program into the early 1930s. A positive relationship begins to arise by 1938; in particular, a 10 percent increase in Rosenwald coverage is associated with a 0.7 (0.3) percent increase in the probability of a local branch in the county. For context, around 12 percent of rural Southern Blacks live in a county with an NAACP branch in 1938 and the interquartile range in exposure is roughly 47 percent (19 to 66 percent). So the effect is economically small. Still it is somewhat surprising that any relationship pops up by then since the coming explosion in Southern branch growth had yet to significantly materialize (see Figure 1), and indeed the difference-in-difference results (Table 3) are economically limited in 1938. Nevertheless, this is evidence of a causal effect of Rosenwald operating prior to WWII and independently of the large shifts in NAACP growth to come.

The relationship between coverage and branch presence grows notably in the 1940s and 1950s. The point estimate more than doubles in 1946, although a large increase in variance suggest that schooling was one of potentially many factors that led to the period of rapid growth around WWII. By 1956, the coefficient is 0.34 (0.08), implying that an additional 47 percent of local Black youth

⁴⁰For presentation purposes, we omit 1942, which looks similar to 1938.

who could attend a Rosenwald school in 1931 (the interquartile range) leads to a 16 percent increase in the probability of a NAACP branch in a county. Again, the time pattern of the estimated coverage effect departs from the overall pattern of branch growth and is consistent with the impact of accumulating human capital. By 1956, the growth of the point estimate and the reduction in its standard error also implies that schooling facilitated the maintenance of NAACP growth that occurred in the 1940s. Stated differently, idiosyncratic forces during WWII appear to have driven a burst of growth which was sustained in later years in exactly those places with greater exposure to Rosenwald schools.⁴¹

Together, these results show that a larger share of local Black children eligible to attend Rosenwald schools in 1931 had a growing association with NAACP activity over the subsequent 25 years. Recall that the coverage measure reflects children ages 7 to 17 in 1931, meaning that they will be young adults over the period in which a relationship emerges. Most Rosenwald schools had been open for 10 years or less, in 1931, so older cohorts in these counties were also partially exposed to Rosenwald. While we lack the ideal cohort-level data on exposure to Rosenwald and participation in the NAACP, it is noteworthy that the Rosenwald schools had educated a growing share of adults over this time period.

Taken together, the Rosenwald evidence indicates that the intensive margin effect might start somewhat earlier and takes longer than the extensive margin to fully materialize, a pattern consistent with what is known about mass political movements. Theories of political activism suggest different mechanisms for the initial appearance of activist movements and their persistence (McAdam, 1999). If idiosyncratic returns to a small number of individuals lead to the creation of new branches, while broader population characteristics influence their overall success and mass participation, we would expect intensive margin effects to unfold more gradually over time than extensive margin effects. Such a relationship would hold if the first pioneers of Rosenwald students

⁴¹Appendix Figure A.5 shows the results are similar for number of branches in a county, rather than presence of a branch in a county. We also estimated the same coverage results without the inclusion of the propensity-score control. The point estimates are weaker and statistically insignificant in all years before 1956, consistent with negative selection of counties into the Rosenwald program relative to the predictable component of NAACP growth. Consequently, our results are likely biased downwards if any omitted variables have the same relationship with NAACP activity as those included in the propensity score.

(those experiencing extensive margin effects) grew up and become local leaders who galvanize the grassroots civil rights movement. In contrast, the intensive margin serves to measure the cohort-level flow, an accumulating force over time. It is noteworthy that the NAACP was in a period of relative stagnation and churn of local branches in the 1930s. The fact that the intensive margin effects of Rosenwald show up at the end of the 1930s, but not earlier, is also consistent with the idea that the coverage of the schools affects the survival of branches more than their formation.

5 Discussion

We study how large gains in the schooling of Black children during the early 20th century influenced a significant expansion of the leading grassroots civil rights organization during the 1940s and early 1950s. This era, in which there were limited opportunities for advancement to semi-skilled occupations among Black men, closely corresponds to the conditions identified by the economic theory of political activism in [Campante and Chor \(2012a\)](#), [Campante and Chor \(2012b\)](#), and [Campante and Chor \(2014\)](#). Specifically, education may lead to activism in situations where the opportunity cost of time through higher wages does not operate. Thus, our empirical findings support the central prediction of their model. We conclude that the labor market can mediate the relationship between education and political activism and impact the emergence of political movements.

Three important issues deserve additional discussion and, hopefully, further analysis in future work. First, we treat education as a fundamental object throughout the analysis without attempting to model its content. Scholars have long connected the choice of what to teach in schools to the implications for Black Americans' progress; indeed, over a century ago, Booker T. Washington and W.E.B. DuBois debated the relative value of industrial education and job training versus a broader liberal arts education. In the Rosenwald school setting, DuBois' views prevailed.⁴² However, to the

⁴²See e.g. [Reed \(2004\)](#). [Wright \(1999\)](#) tells of Rosenwald schools tailoring their curricula to broad skills and away from specific skills and knowledge that would be useful for local industries and occupations unavailable to their students.

best of our knowledge, no systematic data describes the educational content of specific Rosenwald schools, or for that matter other schools that Black youth could attend, that might have influenced participation in civil rights organizations. We suspect that the differential returns to human capital we identify in the income gap analysis reflect both labor market opportunities (discrimination), as well as endogenous responses of the schools to these local opportunities.

Second, we focus on the relationship between education and political activism without explicitly modeling the role of the local organizers of the NAACP branches. The emergence of political movements are complex, multi-step processes that depend on difficult to observe expectations about the future evolution of economic, political, and institutional environments. In particular, theories of political activism (such as [McAdam \(1999\)](#)) emphasize the distinction between activists, who serve as the vanguard and initiators of political movements, and the broader participants in an on-going mass movement. As the evidence presented in this paper focuses on the explosion of NAACP activity before the classic civil rights movement, we believe it largely reflects the choices of activists, as in [Dippel and Hebllich \(2021\)](#). Nevertheless, activists will consider the broader demand for a prospective mass movement and expectations of successful change. Taken together, our evidence is consistent with a causal effect of education on the activists who could, by the early 1940s, foresee the growing benefits and possibility for social change realized over the next several decades. Our two main findings, that activism occurs in places with larger Black-White income gaps due to occupational discrimination and in response to the expansion of schooling opportunities, align with theories (e.g. [McAdam \(1999\)](#)) that emphasize the potential returns to political activism as a key driver of the latent demand for activism.

A richer model of the role of activists might also consider the marginal effect of education on activism and broader participation in a mass political movement. For example, the presence of a school may have been sufficient to educate the activists and leaders of a prospective movement, even if the school only served a small share of the overall population. Indeed, we find Rosenwald presence has a strong and early relationship with the appearance of mid-century NAACP growth, particularly during WWII, when the economic prospect of Black workers expanded rapidly. As

the share of local youth who can attend school rises, i.e. mass education takes off, the effects of education on the intensive phase of activism can behave quite differently than effects on the activists who start the movement. Consistent with a distinct effect of mass education, the empirical analysis shows a growing effect of Rosenwald coverage, with the largest effects of the share of local youth who could attend a Rosenwald school found at the end of the sample period in the mid-1950s.

Lastly, a crucial element of this historical episode is the outbreak of WWII (e.g. [Jonas \(2005\)](#), [Sullivan \(2009\)](#)). It seems clear from the time series of NAACP branches, and particularly its rapid growth during the 1940s, that the war, and a host of subsequent changes in the economic, political, and institutional environment that it set off, precipitated an early tipping point in the formation of the movement. Both the descriptive evidence on the rapid growth of activism and causal estimates associating human capital with long-run treatment effects demonstrate that the war brought out the latent demand for activism and created the possibility for changes that would unfold over the next two decades. We have largely set aside direct questions about which aspects of the war triggered the social changes which permitted the growth of the NAACP. As in the self-immolation of a fruit vendor in Tunisia in 2010, the arrest warrant for Miguel Hidalgo in Mexico in 1810, or the march of 700 British soldiers to Concord, Massachusetts in 1775, an external event may have been required to spur deeper forces pushing towards change.

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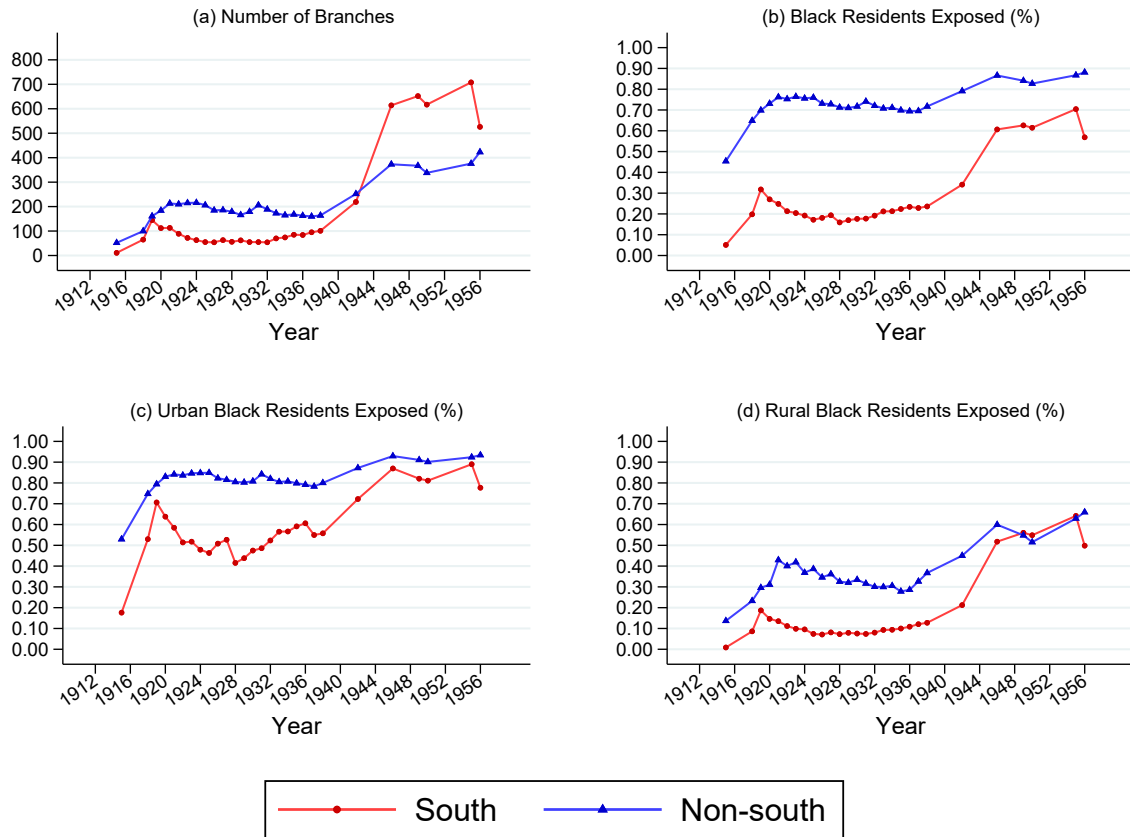
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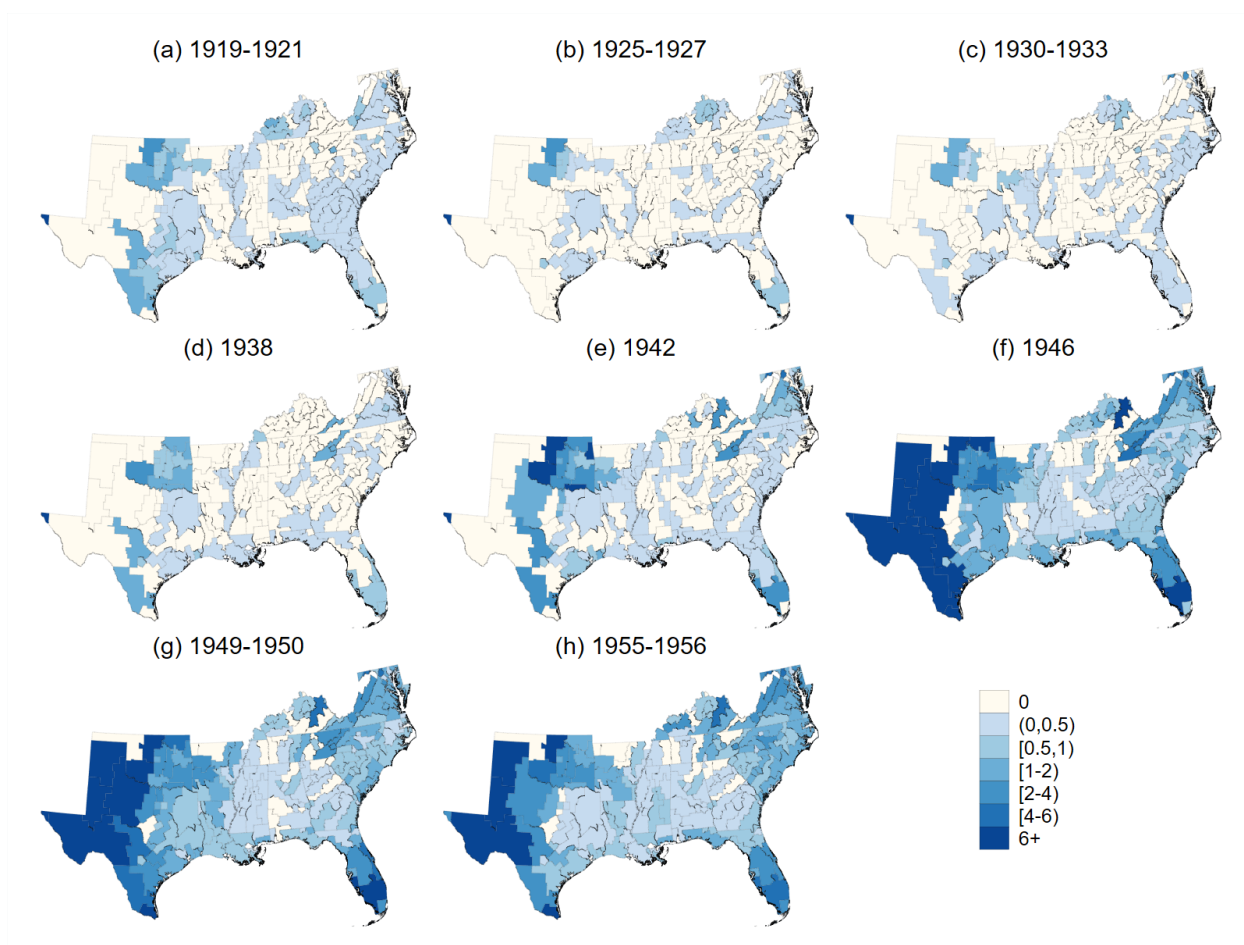
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Figure 1: Growth of NAACP branches



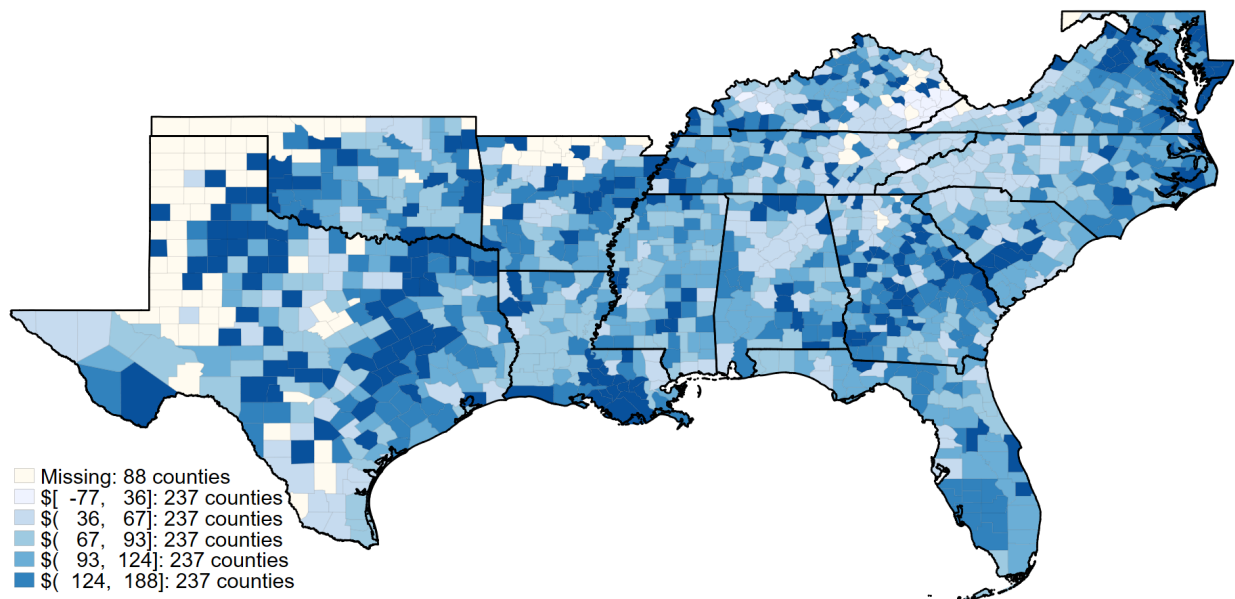
Panel (a) shows the total number of active NAACP branches by year. A branch is active if it reports positive dues or membership. Panel (b) shows the share of Black residents living in a county with an active NAACP branch. Panel (c) shows the share of Black residents living in urban counties with an active NAACP branch. Panel (d) shows the share of Black residents living in rural counties with an active NAACP branch. The Black population is from the 1920 Census.

Figure 2: Number of NAACP branches per 10,000 Black residents in 1920, by state economic areas



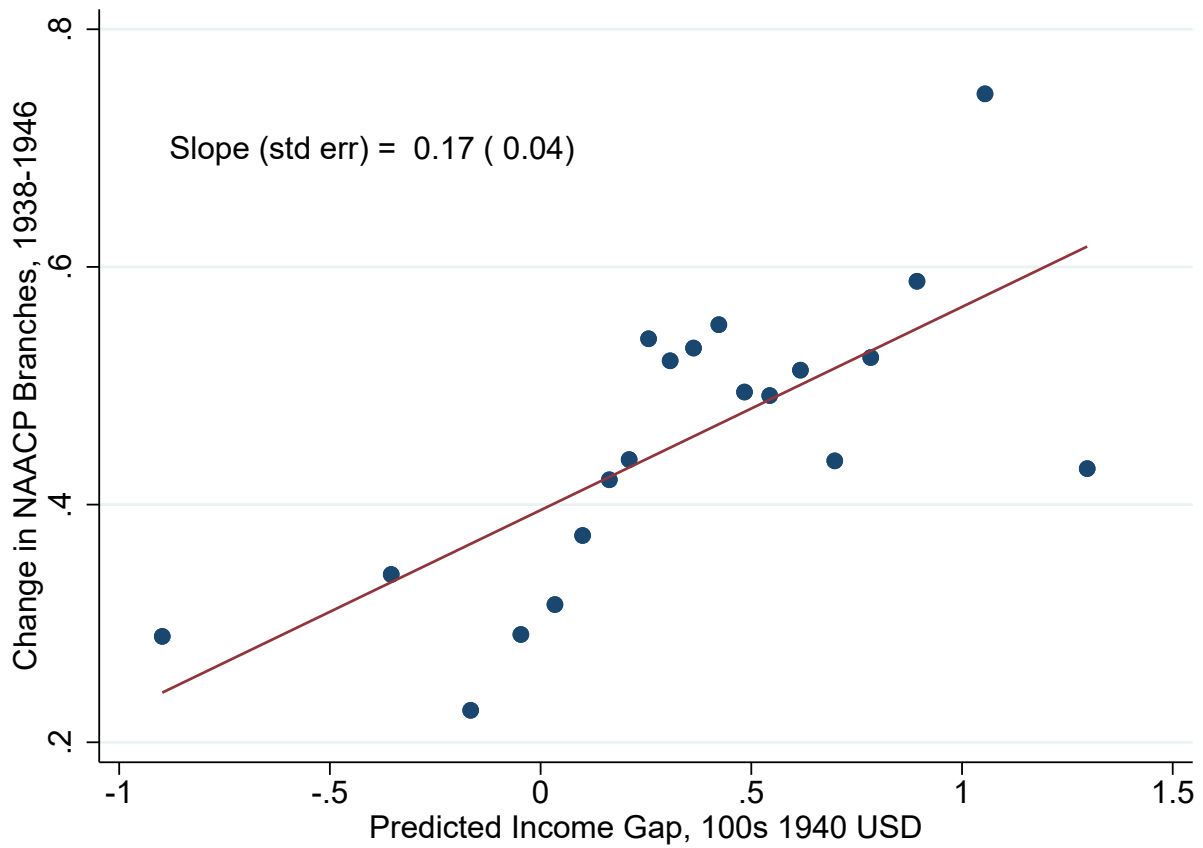
This graph shows the evolution of the number of NAACP branches per 10,000 Black residents at the state economic area level. The Black population is taken from the 1920 Census.

Figure 3: The income gap, by Southern county



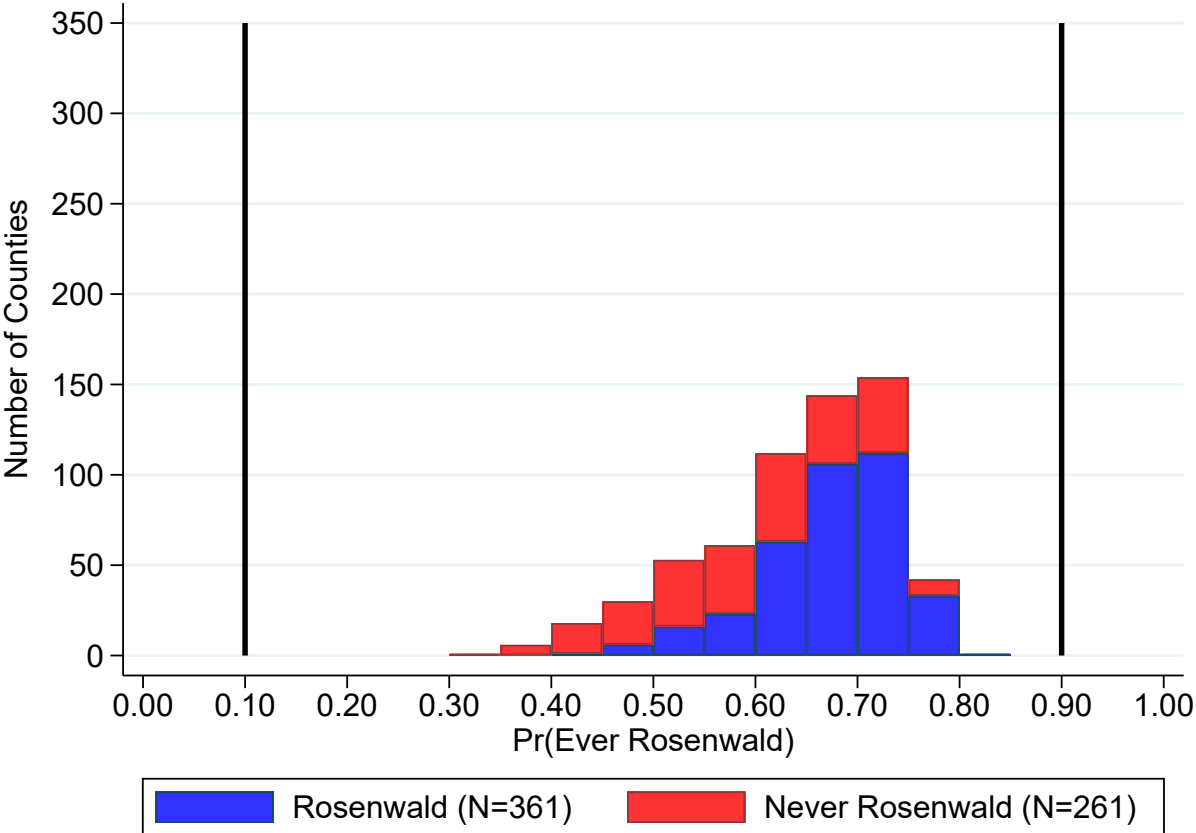
This figure shows the geographic distribution of the income gap in the South. The income gap represents what Black men aged 25 to 50 would have earned in a Southern county (in 1940 US dollars) if human capital led to occupational assignment in the same way as outside the South. The map reports income gap values by quintiles for counties with a positive Black population in 1920 and is windsorized at the 5th and 95th percentiles. See [section 2](#) for details.

Figure 4: Change in NAACP branches between 1938 and 1946 versus the 1940 income gap, Southern rural counties



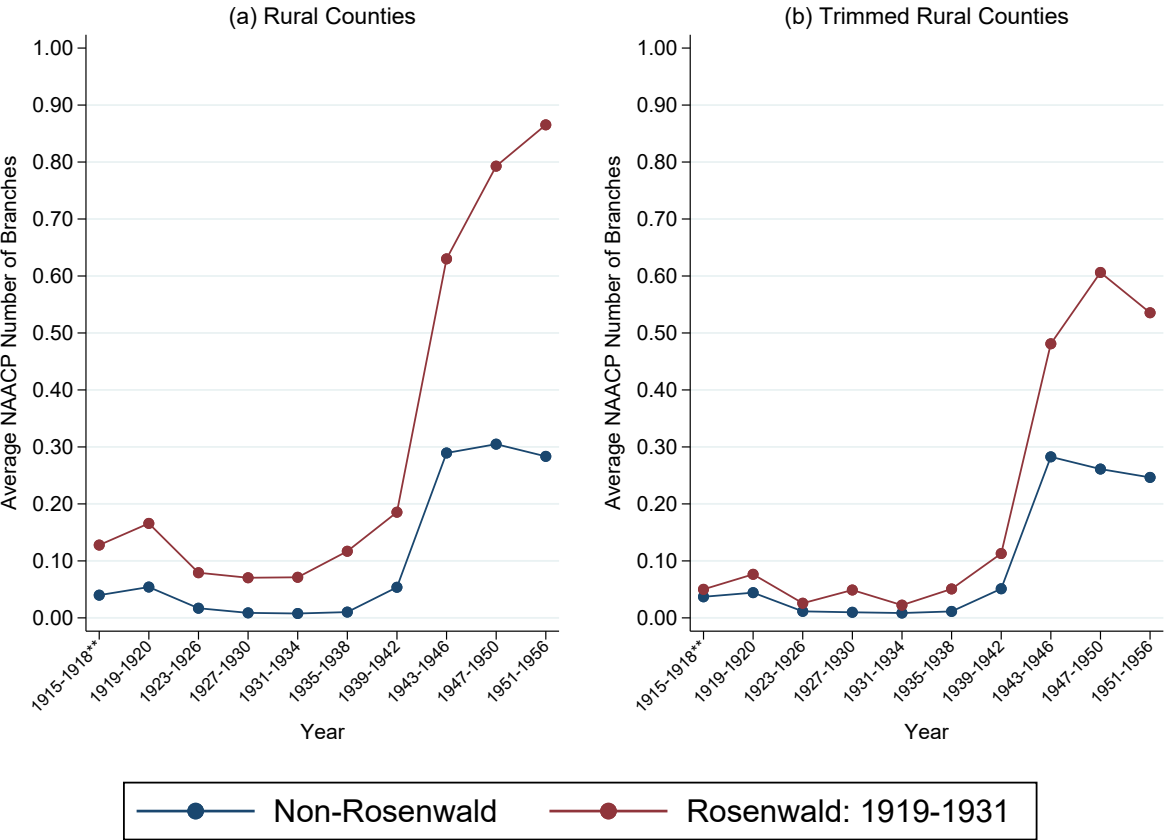
This figure shows the bin scatter plot of the change in the number of NAACP branches between 1938 and 1946 against the income gap (see Section 2) for rural Southern counties. The scatter plot shows the means of residualized variables grouped into 20 bins, where each measure adjusts for the same set of controls as the base specification (column 1) in Table 2. The best linear fit line is in red.

Figure 5: Likelihood of a Southern county having a Rosenwald school, Distribution of propensity scores after trimming



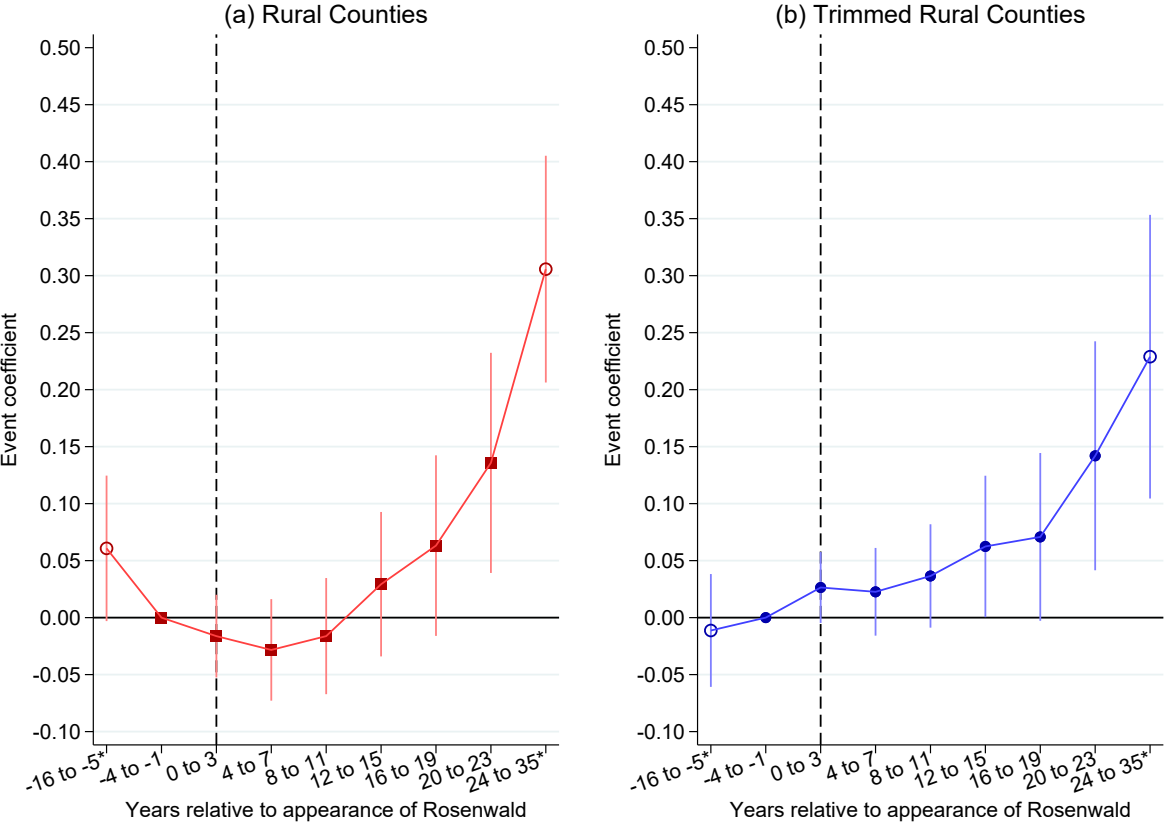
This figure shows the final distribution of propensity scores of the likelihood of a county having a Rosenwald school, estimated after trimming counties with an original propensity score outside of the 0.1 to 0.9 range. See [Figure A.3](#) for the original, complete county sample distribution. The sample includes all Southern counties with a positive population of Black children. See [Section 3.3](#) for more details.

Figure 6: Average number of NAACP branches in rural Southern counties, by Rosenwald status



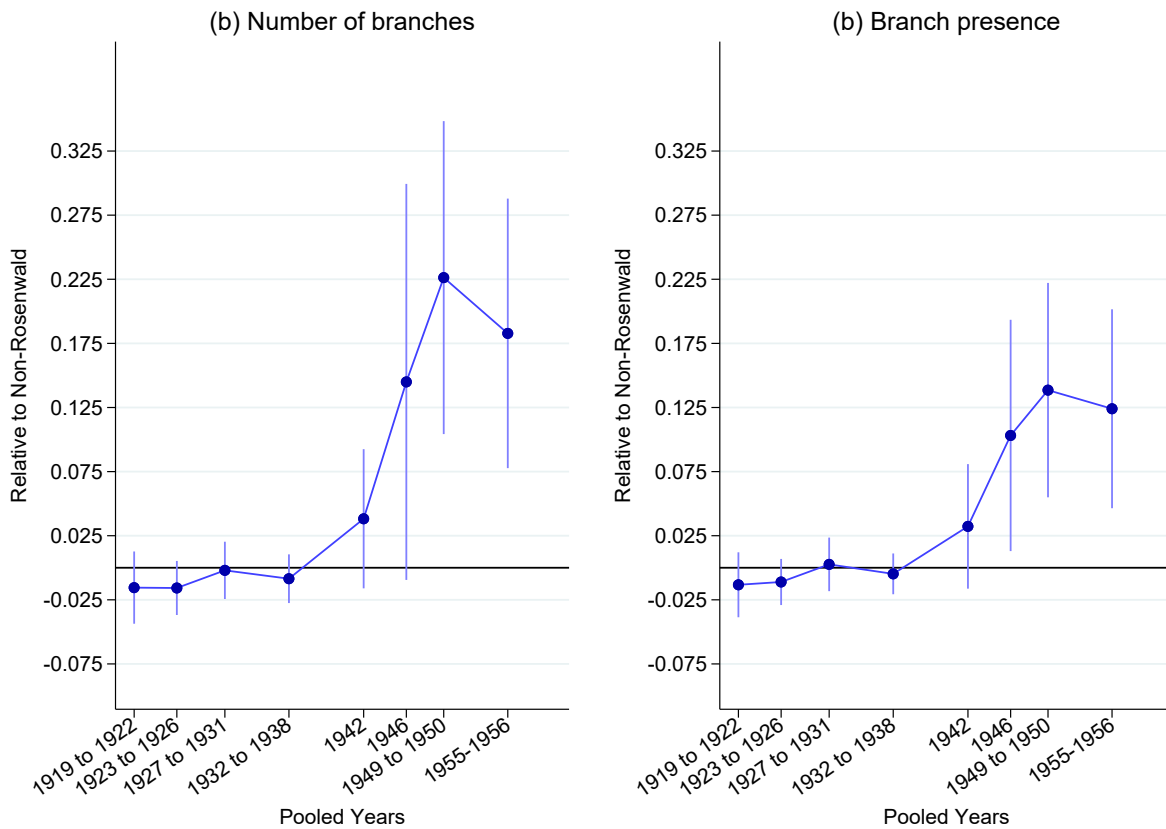
This figure plots the mean number of rural Southern branches by year, where years are grouped into evenly spaced four year time-intervals. The left panel shows the full set of rural counties. The right panel trims the sample to be rural counties with propensity scores between 0.1 and 0.9. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930.

Figure 7: The effect of the first Rosenwald school in a county on NAACP branch growth: Event study estimates



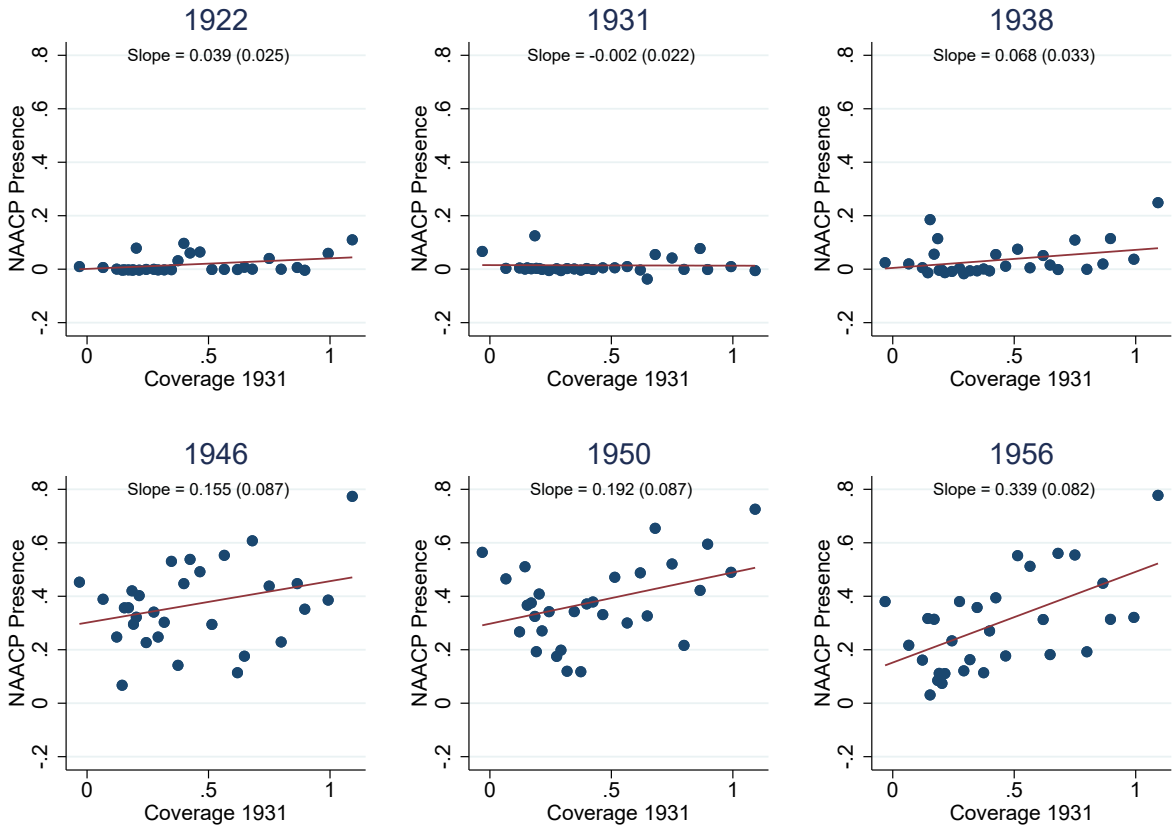
This graph plots the estimated coefficients and 95% confidence intervals from the event study model in equation 6. Panel (a) uses all rural Southern counties, and panel (b) includes only the rural Southern counties with propensity scores between 0.1 and 0.9. The excluded event dummy is “-4 to -1” years prior to the first Rosenwald in a county, with the first and last event dummies “binned up” over multiple event periods (“-16 to -5” and “24 to 35”). The first and last periods are indicated by hollow symbols to reflect an unbalanced panel. Regressions control for county fixed effects and an interaction of period fixed effects with quintiles of p -scores. Robust standard errors are clustered at the county level. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930.

Figure 8: The effect of Rosenwald schools on NAACP branch growth: Difference-in-difference estimates



This graph plots the estimated coefficients and 95% confidence intervals from the difference-in-difference model in Equation 7. Regressions control for the interaction of period fixed effects with quintiles of propensity scores and all the base variables used in estimating the propensity score. Both panels trim the sample to be rural counties with propensity scores between 0.1 and 0.9. Robust standard errors are clustered at the county level. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930.

Figure 9: The effect of Rosenwald schools on NAACP branch growth along the intensive margin, by selected years



This graph plots the relationship between NAACP presence and the Rosenwald coverage rate in 1931 for rural Southern counties with a propensity score between 0.1 and 0.9. See Section 4.3 for construction details. Rosenwald counties are grouped into 30 quantiles by coverage. Each dot represents the bin-adjusted average presence and coverage, given by residualized values from regressing each variable on indicators for quintiles of the estimated propensity score. The red line shows the OLS-fitted line from regressing presence on coverage and the quintiles of propensity score. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930.

Table 1: Actual and predicted occupational distribution for Black men in the 1940 rural South

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Professional, Managers	Clerical, Kindred workers	Salesmen	Craftsmen	Operatives, Kindred workers	Farm laborers, foremen	Service Workers	NonFarm Laborers
Actual Share (%) $I[Occupation_{ic} = o]$	3.85 (4.086)	0.45 (0.790)	0.29 (0.859)	4.42 (4.614)	11.84 (11.53)	29.11 (18.95)	13.95 (14.90)	36.11 (16.66)
Predicted Share (%) $Pr(\widehat{Occupation}_{ic} = o)$	2.95 (2.040)	0.67 (0.344)	0.25 (0.0847)	4.04 (0.678)	18.89 (0.622)	15.61 (2.072)	14.89 (2.454)	42.71 (2.627)
Share Difference (%) $\Delta Pr(Occupation_{oc})$	-0.91 (4.141)	0.22 (0.838)	-0.04 (0.865)	-0.38 (4.613)	7.05 (11.56)	-13.50 (18.35)	0.93 (13.78)	6.60 (16.37)
Predicted Wage (1940\$) \widehat{Income}_{oc}	900.54 (81.82)	1118.78 (81.96)	991.26 (82.00)	779.57 (81.82)	655.69 (81.85)	239.23 (81.82)	508.60 (81.88)	375.29 (81.82)

For each major occupational group, this table summarizes the means and standard deviations of the variables computed to form the income gap in rural Southern counties. The first row shows the actual share of Black men by occupation. The second row shows the predicted share of Black men by occupation. The third row shows the difference. The fourth row shows the predicted wage of Black men. The calculations are explained in Section 2.

Table 2: The relationship between the income gap and the number of NAACP branches

	Black				White	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Number of Branches</i>						
Income gap	.416*** (.102)	.423*** (.102)	.395*** (.109)	.256** (.123)	.305*** (.101)	-.198 (.150)
Mean Branches	.449	.449	.449	.380	.500	.446
Observations	1117	1117	1117	1117	1202	1126
Controls	Base	WWII	All	All	All	All
Sample	Rural	Rural	Rural	Rural	All	Rural
Year	1946	1946	1946	1956	1946	1946
<i>Panel B: Presence</i>						
Income gap	.680*** (.155)	.696*** (.157)	.693*** (.171)	.553*** (.179)	.634*** (.168)	.025 (.234)
Mean Presence	.349	.349	.349	.314	.382	.346
Observations	1117	1117	1117	1117	1201	1126
Controls	Base	WWII	All	All	All	All
Sample	Rural	Rural	Rural	Rural	All	Rural
Year	1946	1946	1946	1956	1946	1946

This table reports the estimated relationship between the number of NAACP branches and the income gap. The income gap is described in Section 2. The dependent variable for Panel A is the number of NAACP branches in 1946 or 1956 (column 4 only). For Panel B, the dependent variable is presence of a NAACP in 1946 or 1956 (column 4 only). The sample is rural Southern counties, except column 5 which includes all Southern counties. Column 1 controls for the number of branches in 1938, the average number of branches in 1915 to 1938, the percent of Black farmers, the population in 1940, the urban population in 1940, and population density in 1940. Column 2 adds a set of WWII controls: number of WWII public facilities, the casualty rate among semi-skilled White men, and the enlistment rate of semi-skilled white men. Columns 3 through 6 add an extensive set of political controls including variables for Congressional representation, agricultural composition, and religious background, and missing indicators for these variables. See section 2.1 for a list of these control variables. Rural counties are defined as those with less than 50% of population in urban areas. Column 6 reports a set of results analogous to column 3 for White men aged 25 to 50. Standard errors are clustered at the county level and presented in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

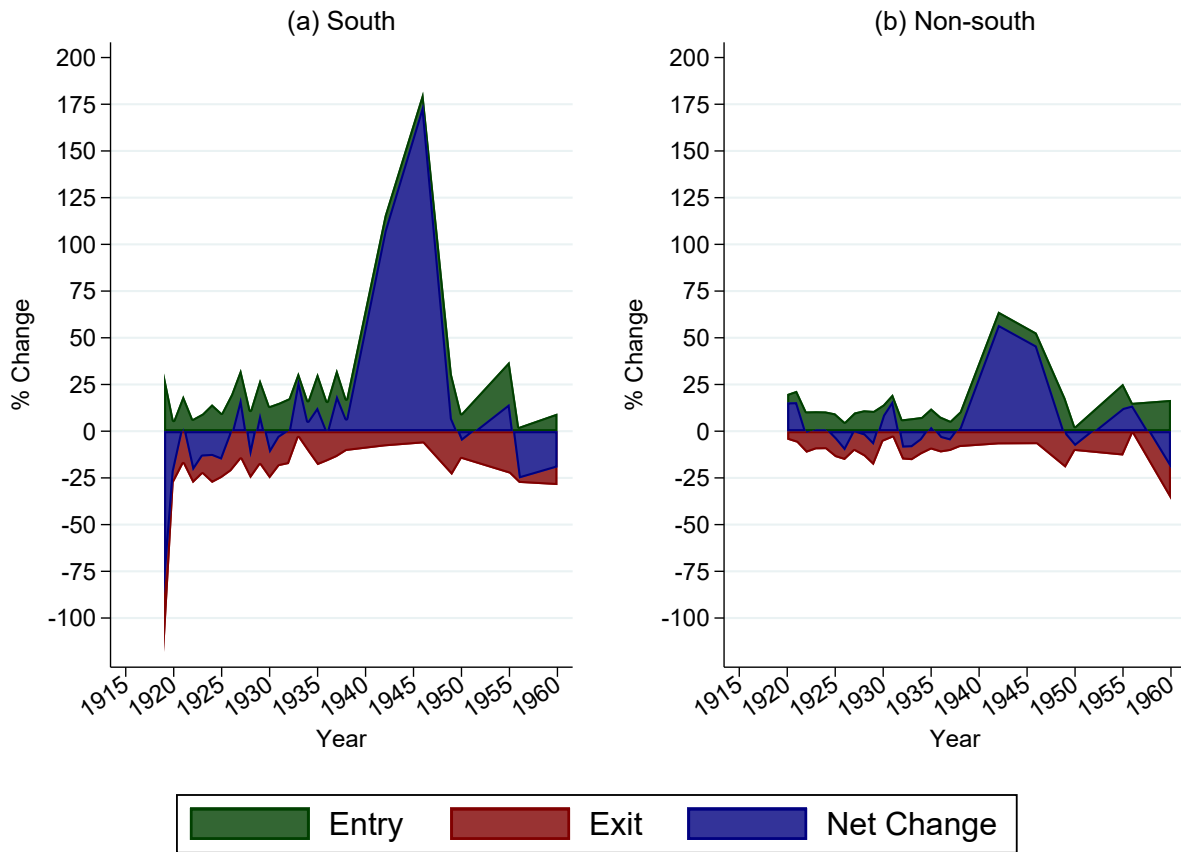
Table 3: The effect of Rosenwald schools on NAACP branch growth: Difference-in-differences estimates

	Number of Branches				Presence			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1919-1922	0.010 (0.013)	0.006 (0.014)	-0.014 (0.014)	-	0.007 (0.013)	0.004 (0.013)	-0.012 (0.013)	-
1923-1926	0.006 (0.008)	0.006 (0.007)	-0.015 (0.011)	-0.001 (0.014)	0.006 (0.008)	0.006 (0.007)	-0.010 (0.009)	0.002 (0.013)
1927-1931	0.018** (0.009)	0.020** (0.010)	-0.001 (0.012)	0.013 (0.016)	0.018** (0.009)	0.020** (0.010)	0.004 (0.011)	0.016 (0.015)
1932-1938	0.015** (0.008)	0.013* (0.007)	-0.007 (0.010)	0.007 (0.014)	0.014* (0.007)	0.012* (0.007)	-0.004 (0.008)	0.008 (0.014)
1942	0.062** (0.027)	0.060** (0.029)	0.040 (0.028)	0.054* (0.031)	0.054** (0.025)	0.049* (0.026)	0.033 (0.025)	0.046 (0.028)
1946	0.198*** (0.076)	0.166** (0.081)	0.146* (0.078)	0.160** (0.080)	0.149*** (0.047)	0.119** (0.048)	0.103** (0.046)	0.115** (0.047)
1949-1950	0.288*** (0.063)	0.250*** (0.066)	0.230*** (0.062)	0.244*** (0.065)	0.190*** (0.043)	0.157*** (0.045)	0.141*** (0.042)	0.153*** (0.045)
1955-1956	0.241*** (0.058)	0.208*** (0.058)	0.188*** (0.054)	0.202*** (0.058)	0.171*** (0.041)	0.142*** (0.042)	0.126*** (0.039)	0.138*** (0.042)
N Counties	598	598	598	598	598	598	598	598
Control Mean	.024	.024	.024	.024	.024	.024	.024	.024
<i>P</i> value 46'-56'	.00004	.00099	.0012	.0013	.000057	.0024	.0037	.003
Period FE	X				X			
\hat{P}_c <i>q</i> ₅ x Period		X	X	X		X	X	X
\hat{P}_c covariates			X				X	
County FE				X				X

This table reports estimated effects from the difference-in-differences model in Equation 7. Columns 1 and 5 include period fixed effects. Columns 2 and 6 control for interactions between period fixed effects and indicators for quintiles of the propensity score, \hat{P}_c . Columns 3 and 7 add covariates used in estimating the propensity score score \hat{P}_c . Columns 4 and 8 also include county fixed effects. The first row of the bottom panel reports the *p* value of the F-test for coefficients for the years 1946 through 1956. For specifications with county fixed effects (columns 4 and 8) we normalize the estimates to 1919-1922. "N counties" reports the number of counties used in estimation, and "Control Mean" reports the mean of the dependent variable in 1919 among counties that never had Rosenwald.

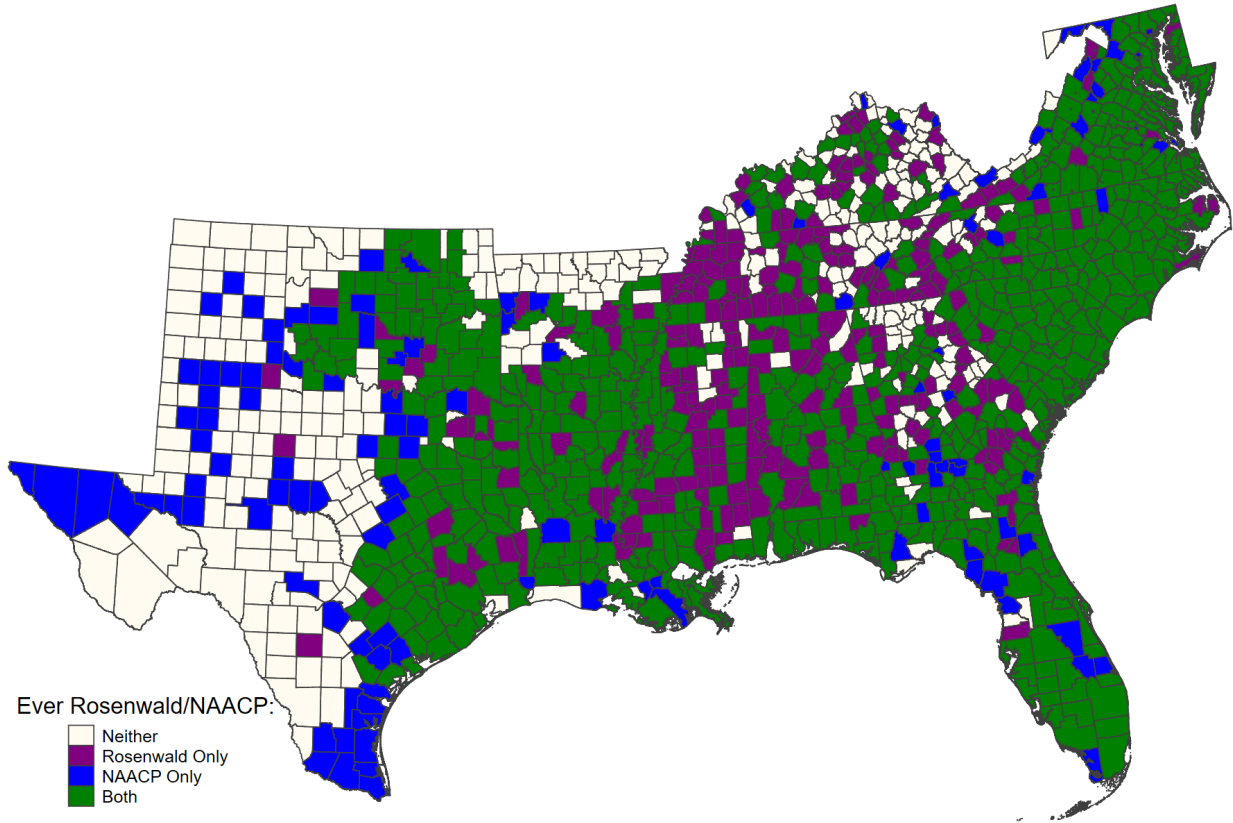
6 Appendix A

Figure A.1: Entry and exit of NAACP branches



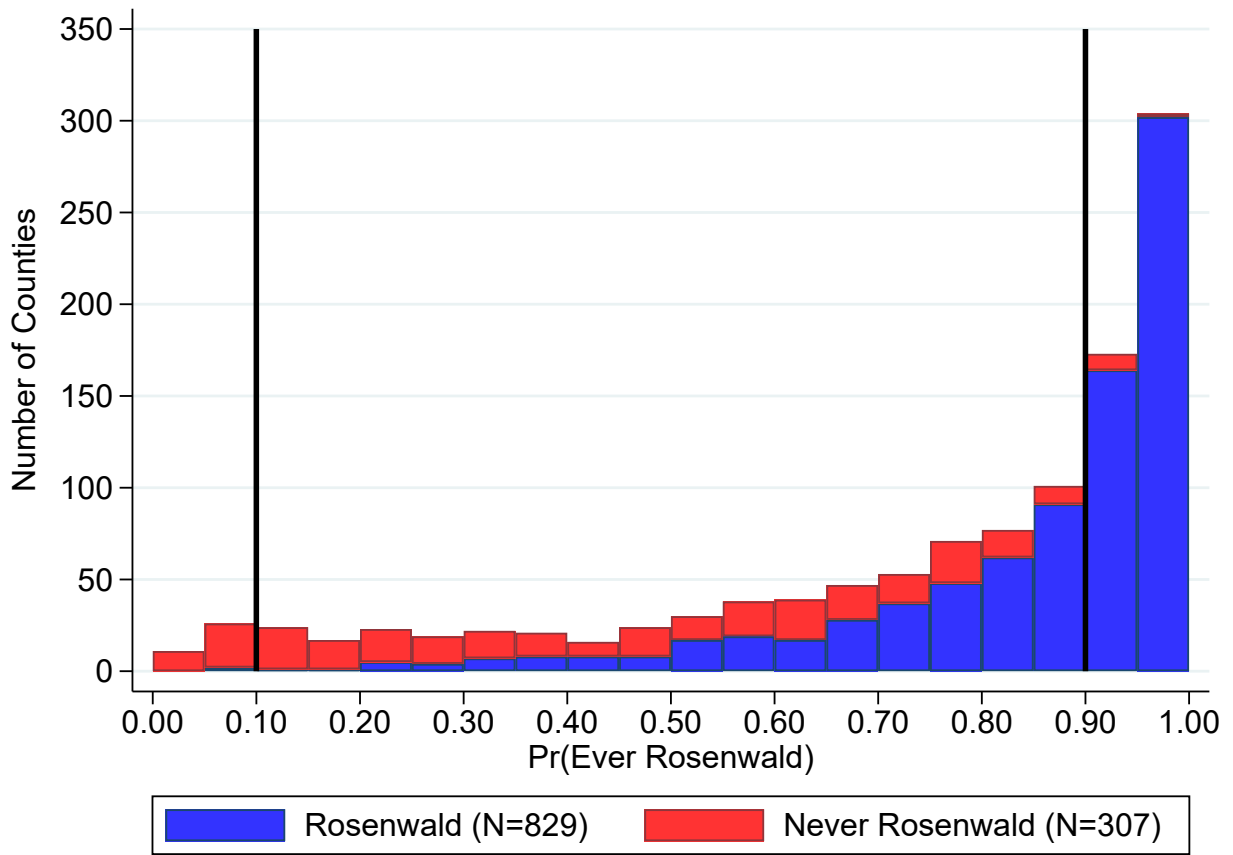
Exit and entry rates are normalized by the number of active branches in the county in the previous period. The net change is the difference between exiting and entering branches.

Figure A.2: Southern counties by ever-Rosenwald and ever-NAACP status



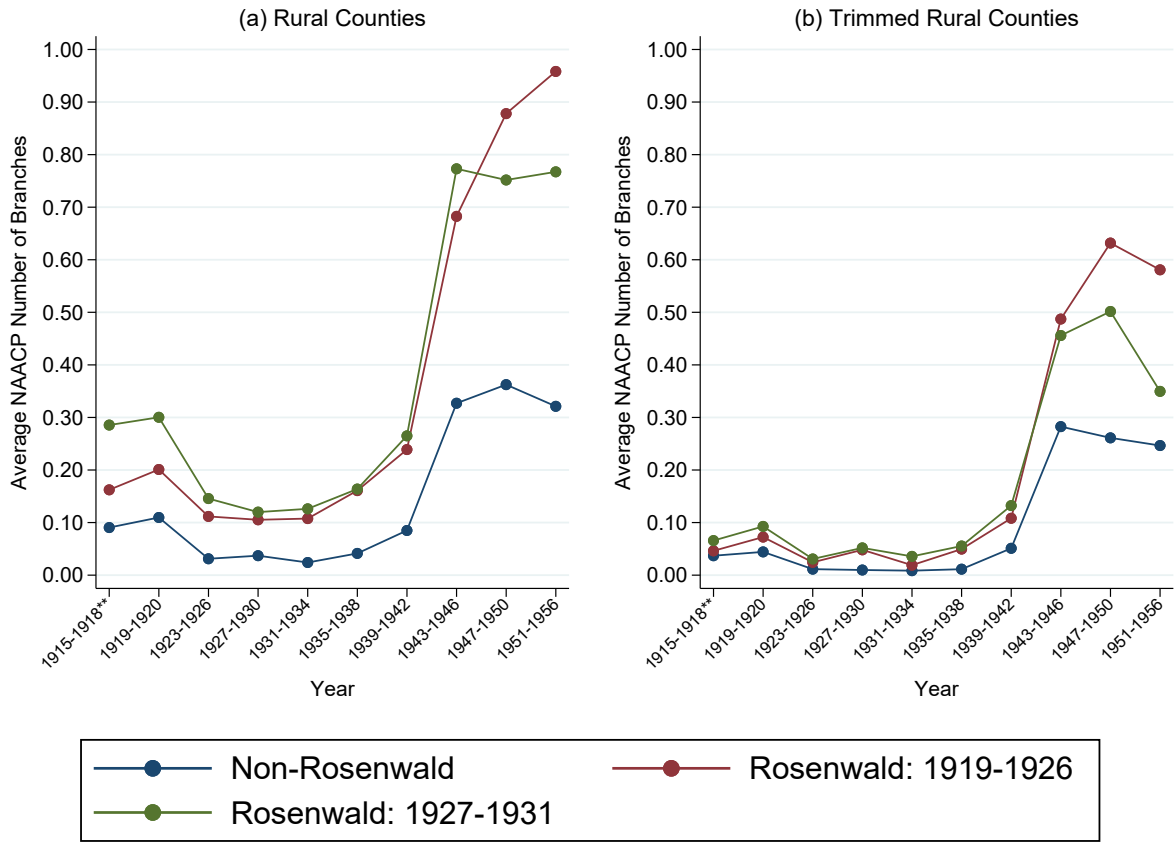
This graph shows whether a county ever had a Rosenwald school and/or a NAACP branch.

Figure A.3: Distribution of Rosenwald p score (before trimming)



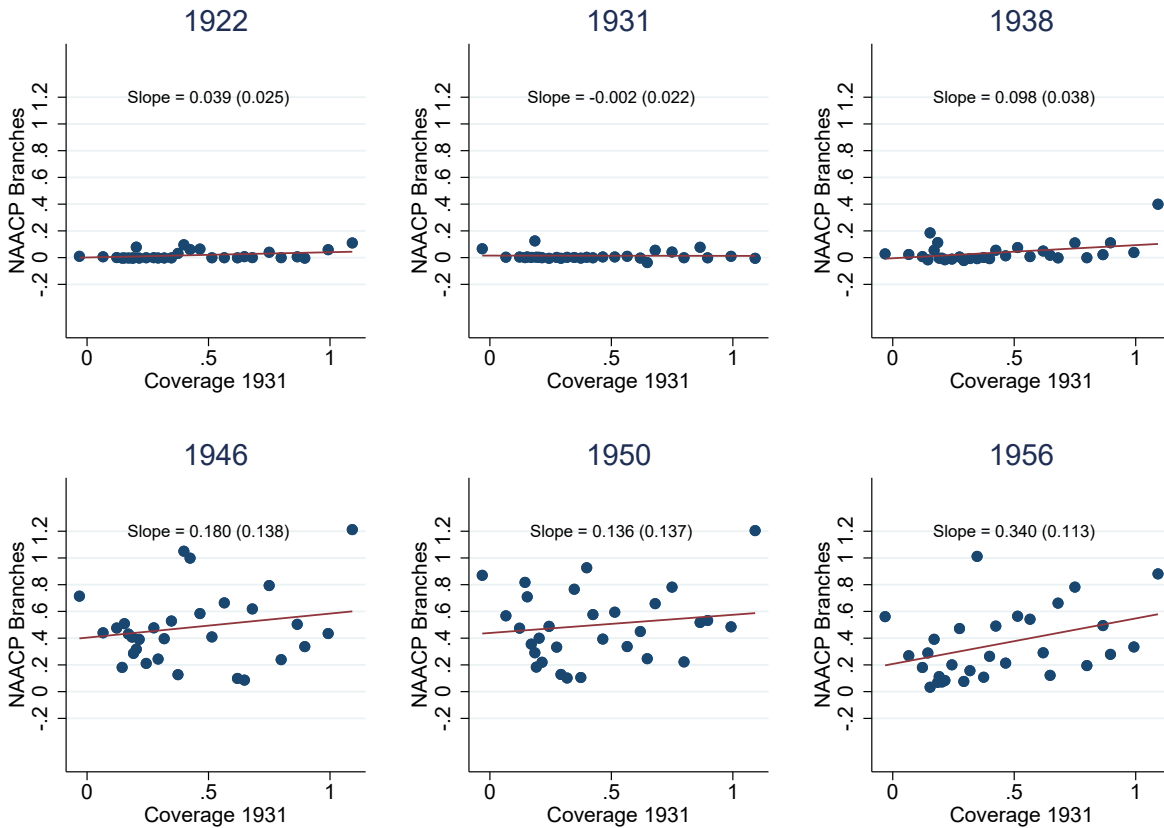
This figure shows the county distribution of estimated propensity scores of whether the county is likely to have a Rosenwald school. The sample includes Southern counties with a positive population of Black children (age 7 to 17). See Section 3.3 for more details.

Figure A.4: NAACP branches by Rosenwald status



This figure plots mean NAACP number of branches by year, where years are grouped into evenly spaced time-intervals that are used in the event analysis. The left panel shows the raw data with no sample restrictions. The right panel trims the sample of propensity scores to be between 0.1 and 0.9 and keeps only rural counties. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930.

Figure A.5: The effect of Rosenwald schools on the number of NAACP branches along the intensive margin, by selected years



This graph shows the relationship between number of NAACP branches and the Rosenwald coverage rate in 1931 for rural Southern counties with propensity scores between 0.1 and 0.9. See Section 4.3 for construction details. Rosenwald counties are grouped into 30 quantiles by coverage. Each dot represents the bin-adjusted average branches and coverage, given by residualized values from regressing each variable on indicators for quintiles of the estimated propensity score. Counties are weighted by the square-root of the average number of rural Black children in 1920 and 1930. The red line shows the OLS-fitted line from regressing presence on coverage and the quintiles of propensity score.

Table A.1: Summary statistics, rural Southern counties

<i>Panel A: NAACP</i>	(1) Number of Branches	(2) Presence	(3) Branches Per County
1919	85	0.073	0.079
1929	34	0.032	0.032
1938	61	0.053	0.057
1942	152	0.127	0.142
1946	504	0.362	0.470
1950	505	0.358	0.471
1955	588	0.418	0.548
<i>Panel B: Rosenwald Schools</i>	(1) Number of Schools	(2) Presence	(3) Coverage (%)
1919	633	0.250	3.165
1925	2834	0.596	17.367
1931	4312	0.732	32.959

This table shows summary statistics of NAACP branches and Rosenwald schools (number, presence, and either branches per county or coverage) for rural Southern counties only.

Table A.2: Characteristics by occupation for White men

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Professional, Managers	Clerical, Kindred workers	Salesmen	Craftsmen	Operatives, Kindred workers	Farm laborers, foremen	Service Workers	NonFarm Laborers
Actual Share (%) $I[Occupation_{ic} = o]$	18.79 (5.554)	5.59 (2.073)	4.40 (2.464)	15.97 (4.436)	18.99 (9.975)	13.79 (9.420)	3.87 (3.992)	18.69 (9.045)
Predicted Share $\widehat{Pr}(Occupation_{ic} = o)$	15.25 (4.170)	5.18 (1.194)	3.71 (0.856)	15.28 (1.239)	22.79 (1.341)	13.37 (2.558)	4.40 (0.238)	20.03 (2.987)
Share Difference $\Delta Pr(Occupation_{oc})$	-3.54 (3.248)	-0.41 (1.668)	-0.69 (2.077)	-0.69 (4.250)	3.80 (9.740)	-0.41 (8.946)	0.53 (3.988)	1.34 (8.068)
Predicted Wage \widehat{Income}_{oc}	900.54 (81.82)	1118.78 (81.96)	991.26 (82.00)	779.57 (81.82)	655.69 (81.85)	239.23 (81.82)	508.60 (81.88)	375.29 (81.82)

This table is analogous to Table 1 for White men in the rural South. See Section 2 for details.

Table A.3: Difference-in-differences: membership

	(1)	(2)	(3)	(4)
1919-1922	1 (1.028)	.66 (1.051)	-.74 (1.112)	-
1923-1926	.55 (0.513)	.49 (0.481)	-.91 (0.850)	-.17 (1.030)
1927-1931	.43 (0.520)	.41 (0.555)	-1 (0.854)	-.26 (1.074)
1932-1938	.63* (0.367)	.51 (0.357)	-.9 (0.763)	-.16 (1.041)
1942	5.8** (2.264)	5.6** (2.205)	4.2* (2.185)	5** (2.366)
1946	43*** (10.994)	37*** (10.823)	35*** (10.604)	36*** (10.679)
1949-1950	17*** (3.628)	14*** (3.468)	13*** (3.231)	13*** (3.456)
1955-1956	16*** (5.745)	14** (6.614)	13** (6.339)	13** (6.599)
N Counties	598	598	598	598
Control Mean	1.9	1.9	1.9	1.9
<i>P</i> value 46'-56'	.000031	.0003	.00038	.00042
Period FE	X			
\hat{P}_c q_5 x Period		X	X	X
\hat{P}_c covariates			X	
County FE				X

This table reports difference-in-differences results on membership using the same specifications as in Table 3.

Figure A.6: Ella Baker Letter, December 1942, page 1 (Source: Library of Congress, NAACP Collection)

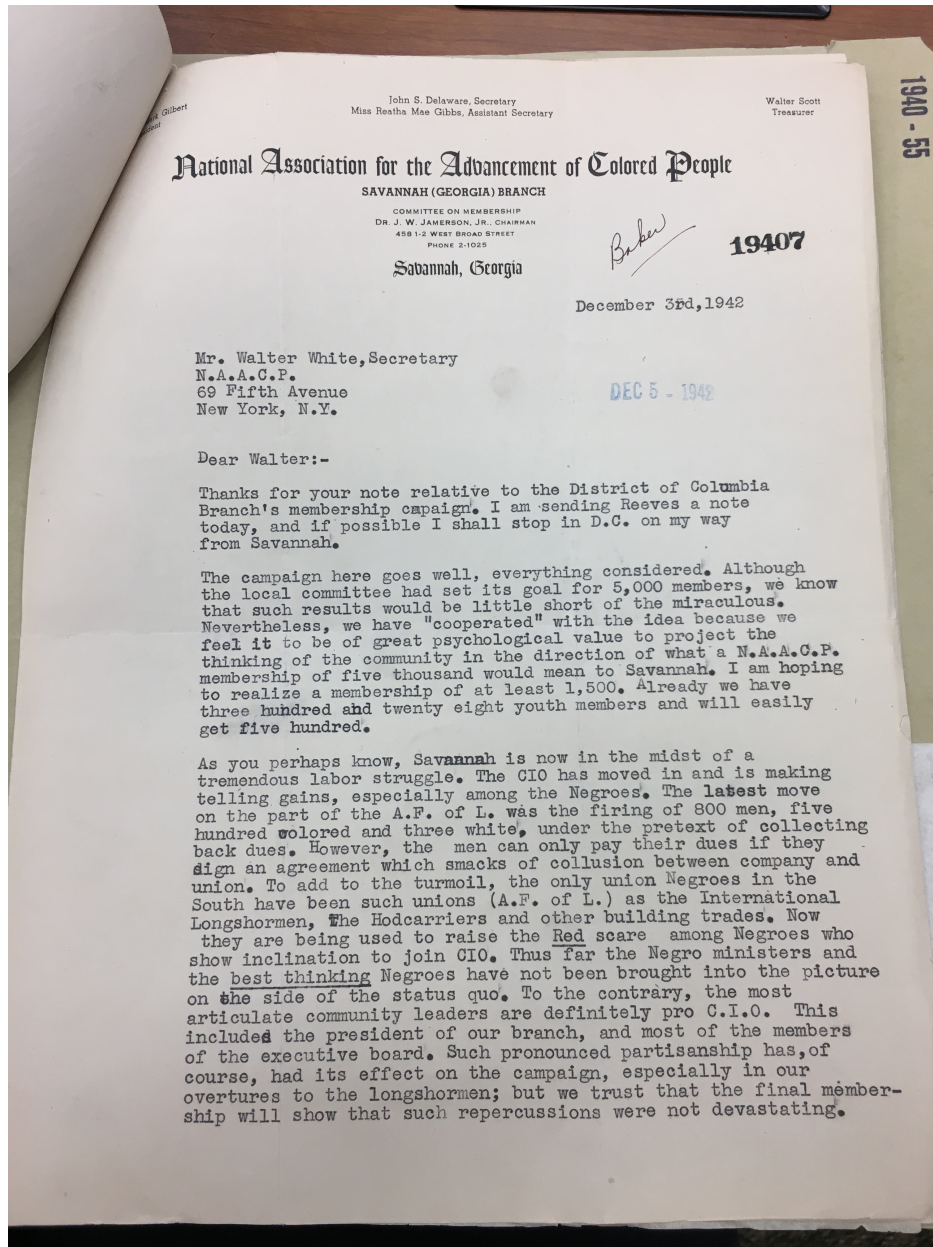


Figure A.7: Ella Baker Letter, December 1942, page 2 (Source: Library of Congress, NAACP Collection)

