

Where My Negroes At?
*Evaluating the Effects of Banning
Affirmative Action on Black College
Enrollment*

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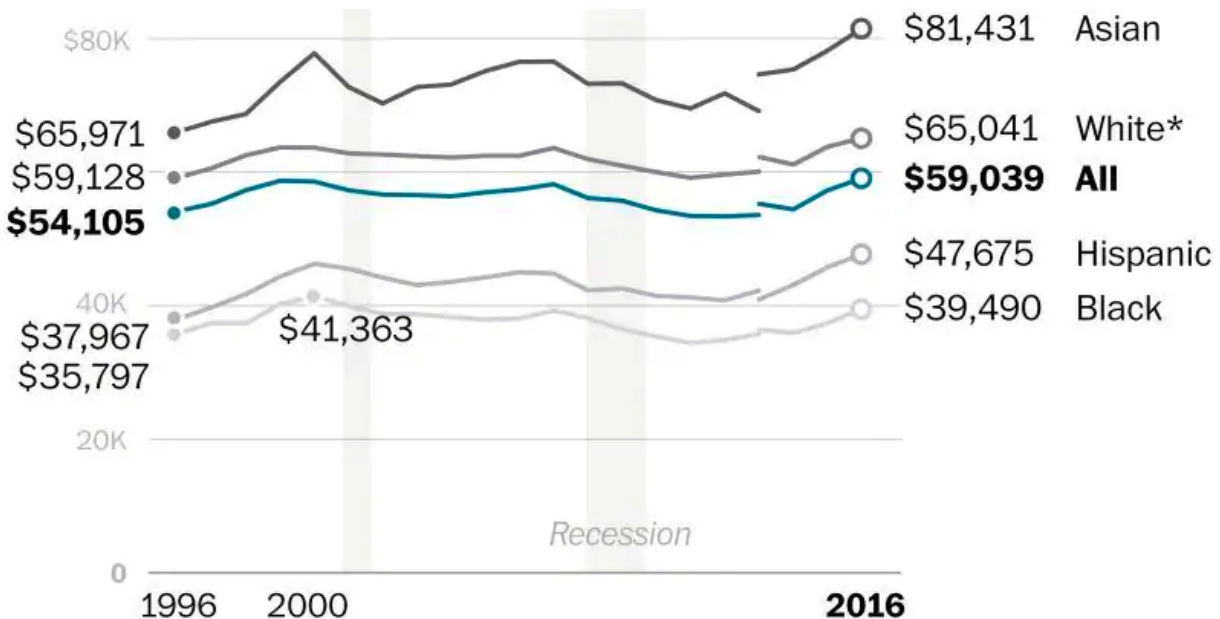
I. Introduction

Racial disparity in educational attainment is well-documented (Page, Murnane & Willett, 2008; Arcidiacono, Aucejo and Hotz, 2016). At highly selective public universities (such as University of California Berkeley) it is often rare to find more than a handful of Black students in nearly any classroom environment – even in large lecture halls containing hundreds of students. According to the US Census, African Americans are the only racial group in the US who today earn less per year than they did in 2000 (Census, accessed 2019).

Is racial disparity in higher education at the heart of this painful truth of the African American economic reality? Some academic literature on California's racial disparity in educational attainment emphasizes the effect of the 1996 affirmative action ban on African American poor educational outcomes (Peschiutta 2019; Bleemer 2018). As such, how effective was affirmative action in making California's Black communities more educated – and by extension, making America more equal?

Overall record, but uneven growth in incomes

The overall median household income hit a high of \$59,039 in 2016, but incomes in black households still lag behind where they were in 2000.



*Non-Hispanic

Note: The Census Bureau adjusted how it measures income in 2014.

Source: Census Bureau

THE WASHINGTON POST

1.1 Background

Affirmative action was established in the mid-60's with the aim of giving preferential treatment to women and minorities in university and employment applications (Holzer and Neumark, 2000).

Californians voted to ban the use of this policy in both state-wide governmental hiring practices, and in public university admission decisions in 1996 in the controversial bill Proposition 209 (Sacramento Bee, Editorial Board, 2015). Some argue that it was a policy enacted by America's White majority as a way to placate Blacks and other minorities without actively promoting racial equality (Baradaran 2017), even going so far as to claim that since affirmative action was eliminated in California, graduation rates amongst African Americans at elite University of California schools improved (Hadley, 2005). Nevertheless, others contend that the policy was instrumental in promoting diversity within elite institutions (Card and Krueger 2005, Yagan 2016). Today, affirmative action is the subject of a Supreme Court case which discusses whether or not the policy is discriminatory towards Asian American students at Harvard University. In October 2019, a federal judge argued that there is no evidence of such discrimination (NYT 2019). Outside of education, affirmative action has remained controversial, especially in the employment space. Research has found that affirmative action increased employment for Black females by over 10% (Leonard 1984), and that relative employment for minorities fell by 2.8% after Prop. 209 passed in California (Myres 2007). Affirmative action policies remain highly controversial both within California and nationwide.

1.2 Research Hypothesis and Question

This gives rise to the empirically founded question driving the analysis at the heart of this study;

“What is the long-run effect of banning affirmative action on African American educational attainment in California?”

In theory, banning affirmative action should cause the number of African American students with access to higher education to fall within California. To cite a recent example, African-American freshmen enrollment at UC Berkeley has dropped from 6.5% in 1995, to 1.9% in 2019 (Wright, 2019). This paper will evaluate the causal effect of the affirmative action ban on college enrollment amongst the Black population in California after the ban was enacted in 1998, using Census-level aggregate data to include non-selective state universities and community colleges in the analysis. Central to the study is the use of a triple differences methodology, which the study to leverage data from the remaining 41 States that have not banned affirmative action as a control measure for the study.

1.3 External Validity

There is reasonable concern about the external validity of the conclusions of this paper, because there is a large amount of national variation in terms of education policy between states. Given the specific nature of this study, it is incorrect to claim that these results are ubiquitously relevant across geographies. In order to combat this challenge in the future, researchers should conduct similar comparisons across various pairs of states. The other aspect of the current research design that could bias the results is that it is impossible to differentiate public versus private university enrollment in the Census data set. Since affirmative action policies affect solely public institutions, it is possible that African American preference for private college has increased along with the ban.

After all, African Americans are more likely than any other racial group to attend a private, for profit college (Li and Scott-Clayton, 2016). Although the conclusions from this paper may not be nationally broad in scope, I hope these findings will at the very least inform the California electoral body of the long-run effects of their political decisions.

1.4 Building on Existing Work

The academic literature on affirmative action has yet to reach consensus on the effects of the policy or the appropriate methods to measure it. A running theme in the literature is about measuring the impact of race-blind admissions on minority students who are “high achieving” - namely, that those who are already high achieving minority students those who would apply to selective schools without affirmative action policies in place, propagating the idea that affirmative action policies are not effective in encouraging minority students to attend university in the first place (Bleemer 2018; Arcidiacono et al 2016; Card and Krueger 2005; Yagan 2016). This paper builds on existing work by examining the effect of these policies on all Black students (regardless of the institution they apply to), which I believe will capture a broader range of Black minority applicants.

Driving my research is curiosity about the effect of race blind admissions policies on low income, low ability Black students. My hypothesis is that banning affirmative action in California will have a strong, negative effect on Black Californian’s educational outcomes overall. A baseline assumption underlying this analysis is that the majority of Black students attending college are not going to highly selective institutions – an assumption that I unfortunately cannot test with the Census data used here, as I do not have access to the kinds of universities that participants attend. However, by analyzing Census level data in aggregate, I can dissect the general effects of banning affirmative action both beyond and including elite institutions. Much of the literature on this subject presumes that high achieving Black students are those who are the worthiest of study. I believe that by considering the general effect of race-blind admissions on Black students in aggregate, my work will add to the existing literature by more widely evaluating the effects of race blind admissions policies on a historically under-represented sector of society.

II. Data Description

Using repeated cross-sectional data from the American Community Survey and the Current Population Survey, I have extracted micro-datasets from both California, and the remaining 41 states that did not ban affirmative action (US Census, 2019).

The sample size forming the basis of my analysis is approximately three million observations, where each observation represents an individual in conjunction with their educational attainment, state of residence, and various other attributes. Of those three million, nearly two hundred thousand (7%) are black with some college education. Since the data type is repeated cross sectional data, meaning the survey does not follow individuals over time. The time period analyzed is between 1960 (when affirmative action was introduced in the United States [Sacramento Bee, 2019]) to 2017, and the unit of observation is at the individual level.

Summary statistics are shown below:

Table 1 – Descriptive Statistics

VARIABLES	N	Mean	S.D.	Min.	Max.
Year	4,417,000	1995	16.89	1960	2017
State	4,417,000	38.85	21.51	2	98
Household Income	3,885,000	1,458,000	3,454,000	-28,400.00	10,000,000
Age	4,417,000	18.47	1.11	17.00	20.00
Total Income	4,417,000	3,797	7,632	-12,000	953,000
Poverty	4,417,000	0.30	0.46	0	1
Mortgage	4,417,000	0.13	0.34	0	1
Urban Status	4,417,000	0.12	0.32	0	1

Here, poverty represents a dummy variable that equals 1 if the individual is in poverty, and 0 otherwise. About 27.9% of the sample lives in poverty. Similarly, 22.1% of the sample has a mortgage, and 20.6% lives in an urban area. More information about these definitions can be found in the US Census.

III. Research Design

My analysis is based on the following regression model:

$$College_{it} = \beta_0 + \beta_1 Black_{it} + \beta_2 Cali_{it} + \beta_3 Post_{it} + \beta_4 Black_{it} * Cali_{it} + \beta_5 Black_{it} * Post_{it} + \beta_6 Cali_{it} * Post_{it} + \beta_7 Black_{it} * Cali_{it} * Post_{it} + \beta_8 X_{it} + \varepsilon_{it} \quad (1)$$

Where

$College_{it}$ = An indicator equal to one if an individual has some college education or more. This is the outcome variable.

$Black_{it}$ = Indicator variable equal to one if the individual is Black, zero otherwise

$Cali_{it}$ = Indicator variable equal to one if the individual is in California, zero otherwise

$Post_{it}$ = Indicator variable equal to one if the individual is sampled after 1998 (the year the affirmative action ban was enacted), zero otherwise

X_{it} = A vector of control variables, including employment status, urban/rural status, and mortgage debt

ε_{it} = An error term

Here, i indexes each census participant, and t indexes the year. The data set includes 40,840 participants who are Black in California, and roughly 7000 participants who are Black, have enrolled in college, and live in California. Further, I have restricted my analysis to those between the ages of 17 and 20, as this is the time when most individuals apply to college, and thus those who are most likely to be affected by the policy change. Inclusion of others outside of this age range within the population creates a substantial bias in the results by including those who are college educated, but not affected by the policy.

Empirical Strategy

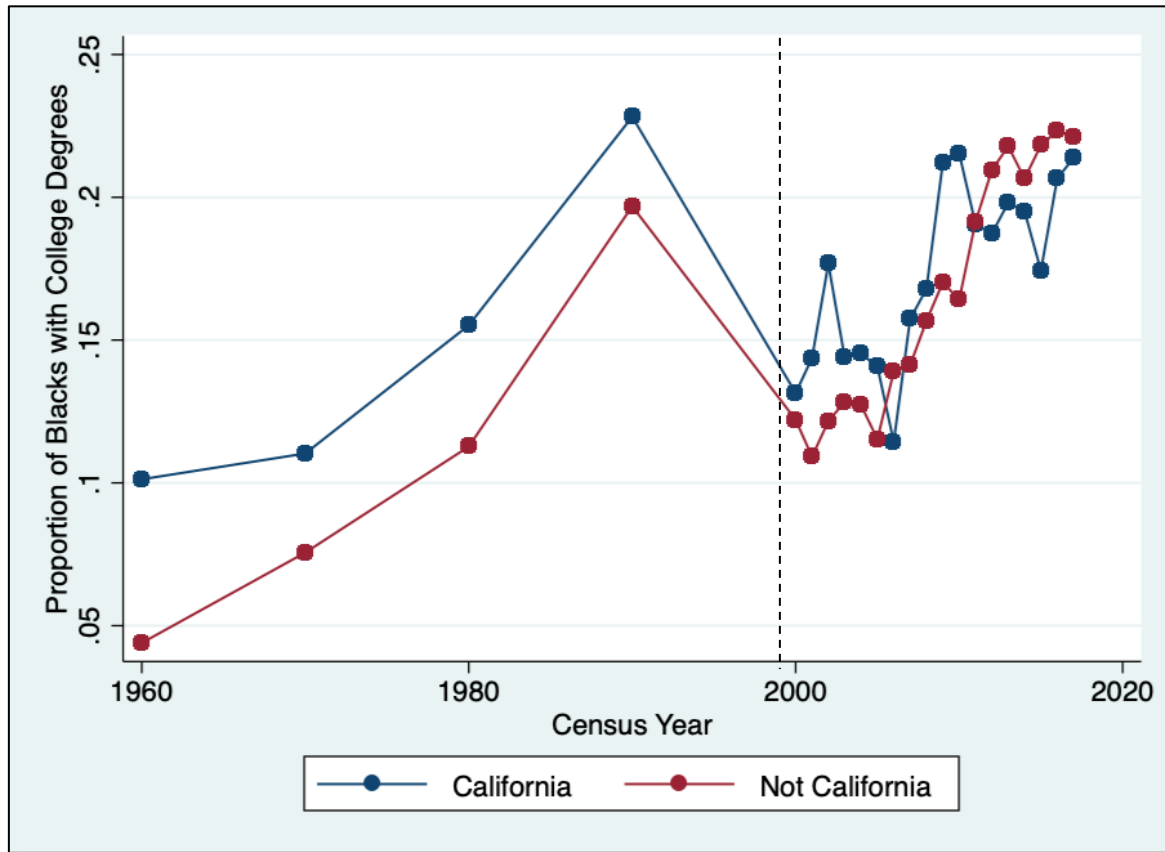
The study evaluates the probability of having some college or more (denoted by a binary variable, equaling one if the individual has some college or more, zero otherwise), while the independent variable of interest is a triple interaction term that describes an individual living in the post-ban period (after 1998), in California, and is Black.

The analysis also leverages the use of state fixed effects to build an accurate counterfactual between college enrollment trends amongst Black populations in California and in other states. While some argument could be made for selecting one state to act as a control proxy for the remaining states, I believe there is too much between-state variation to make this a reliable approach.

A key assumption behind my empirical strategy is that of parallel trends. This is the idea that since Californian college enrollment moved in tandem with college enrollment in the rest of the country before 1998, we expect any significant divergence after 1998 to be a result of some policy change rather than by chance. More details on the validity of the parallel trends assumption are found in the next section.

Data Visualization – Parallel Trends Test

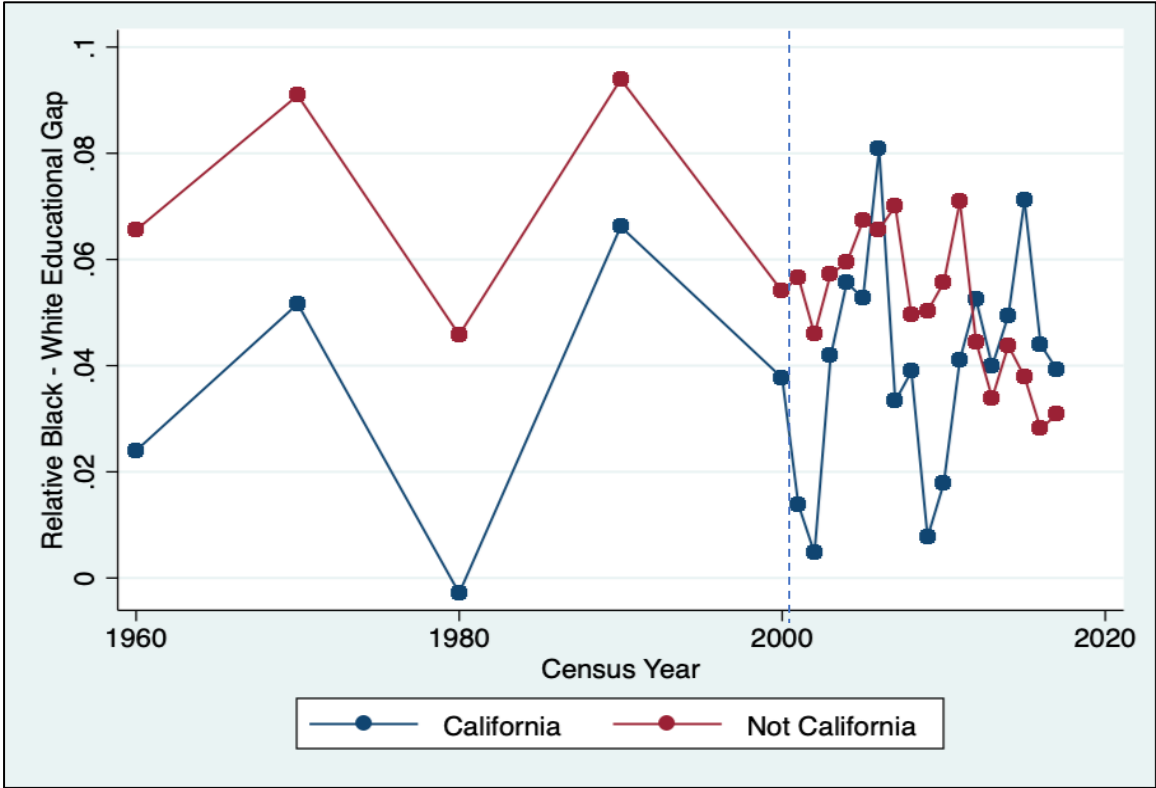
Before I begin my analysis, I plot the historical data trends in California and the remaining States. This image visually validates that the parallel trends assumption holds for these states, demonstrating that the two groups moved in a comparable direction before the ban took place.



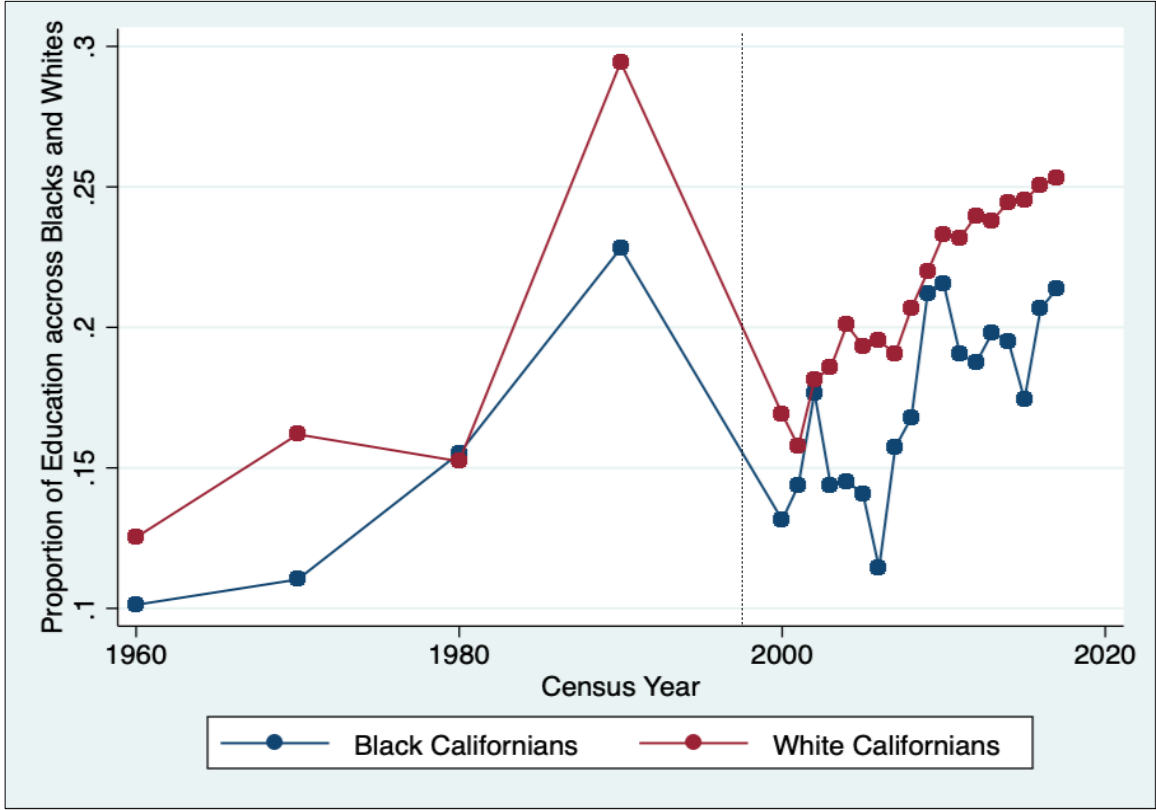
Proportion of Blacks with College Degrees

The chart above shows a two-way scatterplot denoting the proportion of Black individuals within the sample who have had some degree of college education or above over time, as compared to the relative total black population within California versus the rest of the United States. Given that the policy was passed into law in 1996 and enacted in 1998 (after the dotted blue line), we can see that these states run relatively closely in parallel before this time period. After 1998, we can see that the data in California slopes slightly downwards, while the data in the remaining states slopes upward.

A second way to re-verify the parallel trends assumption is to repeat the above scatterplot with the black-white educational gap on the y-axis. This plot is shown below, and again confirms that the parallel trends assumption holds.



Above - Black-White Education Gap



Above - Proportion of Californians with College

Lastly, I present a visual comparison between Whites and Blacks in California. Again, we see the parallel trends between the two groups before 1998, that diverges slightly afterwards. This again demonstrates that non-Blacks in California are an effective control group for this study (though the slight divergence in 1980 makes it a slightly less effective control than the alternatives presented above).

The remainder of my analysis formalizes these comparisons to generate estimates of the causal impact of affirmative action.

Data Reliability

Readers should note that since data is sourced from the US Census, there is a possibility of the presence of reporting bias that could influence these results. For example, it could be that Black survey responders disproportionately give inaccurate information, which would give inaccurate results. Further, since this analysis is characteristically large in scope, the presence of omitted variable bias is also possible, meaning there could be external factors that influence the data that I am currently unable to control for. Nevertheless, I have attempted to mitigate this as much as possible by controlling for employment status, urban/rural status, poverty status and mortgage debt. Lastly, the data uses American Community Survey (ACS) between the years 2000-2009, and 2011-2017. This could cause imbalance in the results, as the ACS is randomly sampled survey data rather than comprehensive surveys like the decennial census data I use at the start of each decade. Since the data is sourced from two databases, we see changes in the results based on the year I sample from. However, I have attempted to control for this issue by using person weights within the sample to correct for potential sampling error, as well as only using ACS data after the year 2000. I feel this creates enough of a time-lag between the affirmative action ban and applicants' decisions to make the effect of the different surveys negligible.

IV. Results and Discussion

Using a triple differences method, this strategy compares the share of African Americans with college degrees in California and the rest of the United States to identify the effect of banning affirmative action on the proportion of African Americans with some college or more within those states. Here, the study employs two controls; comparing educational attainment of both to non-Black Californians in the post period, and to non-Californian Blacks in the post period.

Table 2 – Regression Analysis

VARIABLES	(1) College	(2) College
Black	-0.0899*** (0.00549)	-0.131*** (0.00591)
California	-0.0259*** (0.00580)	-0.0639*** (0.00538)
Post	-0.115*** (0.00355)	-0.0472*** (0.00429)
Black*California	0.0573*** (0.00549)	0.0778*** (0.00515)
Black*Post	0.0398*** (0.00464)	0.0651*** (0.00481)
California*Post	0.0131*** (0.00355)	0.0532*** (0.00426)
Black*California*Post	-0.0351*** (0.00464)	-0.0531*** (0.00468)
Controls?	No	Yes
Constant	0.287*** (0.00580)	0.162*** (0.00731)
Observations	1,245,885	1,245,885
R-squared	0.021	0.061

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table uses individual level observations from the US Census to compare college enrollment amongst Blacks and Non-Blacks between the ages of 17-20. Controls used in Regression (2) are total personal income, mortgage debt, poverty status, and urban-rural status. This analysis is restricted to data between 1990-2000. Robust standard errors are in parentheses.

My findings on the whole support the original hypothesis of this paper, that banning affirmative action is detrimental to the educational welfare of African Americans. Specifically, estimates of equation (1) reveal that banning affirmative action causes a 3.5% fall in the probability of experiencing college for Black Californians (Regression (1), Table 1). This result is statistically significant at the 1% level, which gives me a high degree of confidence in the accuracy of this result. However, given the aggregate nature of this study, there is a high probability of omitted variable bias in these results. This concern led me to introduce controls in Regression (2), which increases the absolute magnitude of the causal effect by roughly 2%. This difference implies that when controlling for income, urban/rural status, and mortgage debt, and poverty status, the effect of banning affirmative action is even larger. The result further implies that regardless of wealth or income level, Blacks are disproportionately affected by the act of banning affirmative action.

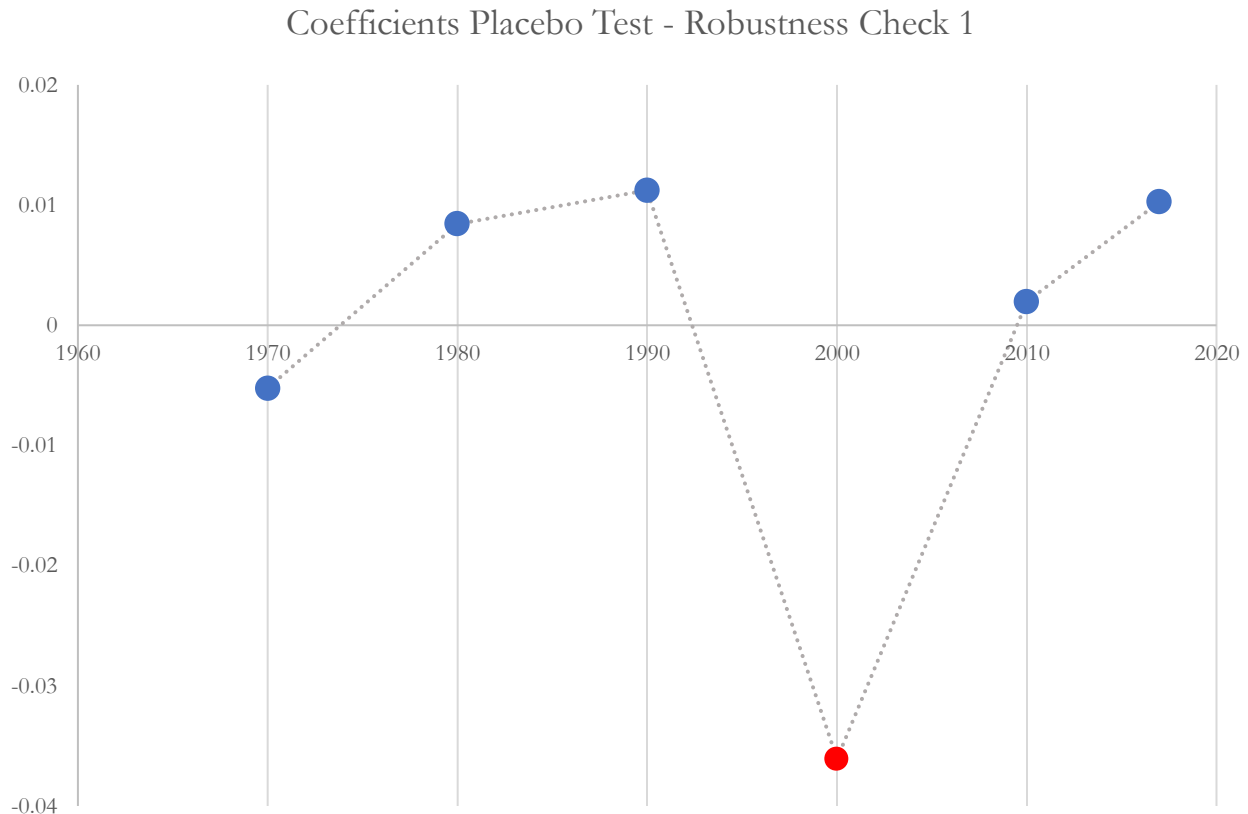
Discussion and Analysis

One concern with the analysis sample used here is that the data is decennial before 2000, and annual from 2000 onwards. While combining two different surveys (the Current Population Survey {CPS} and American Community Survey {ACS}) allows the study to control for personal total income, mortgage status, urban/rural location, as well as using the Census Bureau's own poverty index to control for participants' poverty status, future research should focus on finding a more specific annualized panel data set. Such improved data would allow for more precise evaluation of the impact of the policy itself. Further, future research could study either a specific subset of universities, or a more specific outcome variable (perhaps student test scores or post-graduate income would be appropriate), in order to again verify the wider effects of the policy itself.

Secondly, since the data is repeated cross sections of responses to a random sample across the years and not a repeated panel data that follows the geographical location of participants over time, the study cannot control for outward migration of non-educated African Americans from California. Cost of living within the state is reaching an all-time high, and low-skilled work is getting harder and harder to find (and sustainably live on). This paper is limited in that the data used has no way to account for inward or outward migration of survey participants. This could also be a viable question for future research, as it is highly plausible that controlling for migration patterns would yield substantially different results. Nevertheless, this conclusion could have important policy ramifications for future discussions of race-based admissions policies.

V. Robustness Checks

The first robustness check creates placebo triple differences from the same regression as above between pairs of decades outside of the target pair (1990-2000), then maps that coefficient onto a time trend graph. Coefficients that are statistically significant at 1% are shown in red, while statistically insignificant coefficients are shown in blue.



This analysis contains six observations from six pairs of years; the equivalent of $\beta_7 Black_{it} * Cali_{it} * Post_{it}$ across placebo pairs (for example, by restricting the regression to 1960 and 1970, 1970 and 1980, and so on). This describes the relative black-white education gap across cohorts of 17-20 year olds between Californian and non-Californian states, and demonstrates that the Black-White education gap does not typically change, but shows a drastic drop in the year that affirmative action was banned. Since we observe that only one out of those six observations are statistically significant, and that significance is only found amongst the target pair (1990-2000), this supplies strong evidence that the Black-White gap in California only diverged relative to gaps elsewhere for the precise cohorts affected by affirmative action.

Table 3 – Robustness Check 2

VARIABLES	(3) college	(4) college
California	-0.0267*** (0.00575)	-.0644*** (.00157)
Post	-0.115*** (0.00359)	-0.0483*** (0.00114)
California*Post	0.0136*** (0.00359)	0.0518*** (0.00214)
Under-represented Minority	-0.0940*** (0.00510)	-0.134*** (0.00158)
URM*California	0.0575*** (0.00510)	0.0817*** (0.00508)
URM*Post	0.0403*** (0.00457)	0.0626*** (0.00211)
URM*Post*California	-0.0385*** (0.00457)	-0.0576*** (0.00711)
Controls?	No	Yes
Constant	0.288*** (0.00575)	0.156*** (0.00101)
Observations	1,245,885	1,245,885
R-squared	0.021	0.064

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table uses individual level observations from the US Census to compare college enrollment amongst URM and non-URM individuals between the ages of 17-20. URM is defined as Black, LatinX, Native American and Pacific Islander. Controls used in Regression (4) are total personal income, mortgage debt, poverty status, and urban-rural status. This analysis is restricted to data between 1990-2000. Robust standard errors are in parentheses.

Heterogeneity

A second robustness check runs the exact same analysis as above, except more generally on under-represented minority students. I define under-represented as Black, LatinX, Native American, and Pacific Islander. The results are shown in column (3) and (4) in Table 2 above. Here, we observe that the coefficients on URM*California*Post are extremely similar to those found in Black*California*Post. This implies that the effects of banning affirmative action are ubiquitously negative regardless of which minority group individuals belong to. Bleemer (2018) writes that LatinX students are most negatively affected by the policy – and these results support his finding.

VI. Conclusion

From the horrors of slavery to segregated high schools, African Americans have been isolated from elite American institutions since the inception of the United States (US Department of Education). Policies like affirmative action are designed to bridge the gap between black and white in America, attempting to level the educational playing field for all Americans. Yet the demolition of this policy in California has left thousands of young African Americans without access to higher education – this study shows that young Black people were over 5% less likely to experience any college after 1998. This finding is substantial evidence of the impact banning affirmative action can have on the lives of under-represented minorities.

By using a triple difference approach, the study compares the effect of eradicating this policy on two controls; both non-Blacks in California, and Blacks in other states. This allows for clearer comparison between groups, as well as opportunity for checking the robustness of conclusions. While the conclusions from this paper do not have substantial external validity outside of California, banning affirmative action has nonetheless affected nearly 2.5 million people (Public Policy Institute of California). If California wishes to remain consistent with its progressive ideology, policy makers should strongly consider reversing this ban.

Future research should discuss the impact of outward migration of non-educated Black Californians on the state's proportional educational attainment by race. This paper leaves many unanswered questions on this topic, as the educational attainment gap between Blacks and non-Blacks changes dramatically depending on the age of participants considered in the sample, which this paper hypothesizes is due to immigration of highly educated Blacks, and potential emigration of less-educated Blacks in California. Further, future research should also focus on annualized data within the 1990s and early 2000s, detailing the relationship between other outcome variables, such as test scores, university application outcomes, and race. This would allow for a narrower focus, which will more definitively demonstrate the effect of banning affirmative action.

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