

The Impact of Israel's Class-Based Affirmative Action on Admission and Academic Outcomes

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Abstract

In the early to mid-2000s, four flagship Israeli selective universities introduced a voluntary need-blind and color-blind affirmative action policy for students from disadvantaged backgrounds. The program allowed departments to offer admission to academically borderline applicants who were above a certain threshold of disadvantage. We examine the effect of eligibility for affirmative action on admission and enrollment outcomes as well as on academic achievement using a regression discontinuity (RD) design.

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1. The Study

In the United States, the term “affirmative action” has been synonymous with preference policies based on race and ethnicity. Today, however, due to the growing controversy around these policies and the recent Supreme Court rulings, affirmative action policy in US higher education may be embarking on a new path. In *Fisher vs. University of Texas* (2013), the Supreme Court affirmed the importance of diversity on college campuses, but instructed that universities may take race and ethnicity into account during admissions only after race-neutral solutions have been thoroughly exhausted. In light of the strict scrutiny imposed by the court, elite universities that employ affirmative action will likely seek new and creative ways to achieve campus diversity in the coming years. The obvious alternative to affirmative action policies based on race are those based on class—that is, policies that give an edge in college admissions to the socioeconomically disadvantaged. The problem, however, is that we know very little about class-based affirmative action—mostly because, with the exception of sporadic experiments, it has never been implemented in the US.

Looking beyond the US experience to the battles of other nations with inequality can provide the necessary case study: a real large-scale case of race-neutral class-based affirmative action in university admissions. There is one country that does offer a large-scale, race-neutral, class-based affirmative action policy for scrutiny—the first of its kind, in fact, to ever be implemented in university admissions worldwide: Israel.¹ This program puts forward a distinctive—and theoretically attractive—design. It is completely race-neutral and also need-blind. That is, in evaluating the eligibility of applicants, neither their financial status nor their ethnic origins are considered. The emphasis, rather, is on structural determinants of disadvantage, in particular on neighborhood socioeconomic status and high school rigor (though certain individual hardships are also weighed).

The objectives of an affirmative action policy, be it by race or class, is to diversify the student body of elite schools and pave the way for social and economic mobility among disadvantaged populations. The potential of the Israeli class-based program to achieve these twofold goals will materialize only if the institutions, especially the more prestigious majors

¹ Affirmative action policies are implemented in South Africa and India but these programs are race- or caste-conscious and therefore do suggest new paths for preferential treatment policies. Brazil implemented a new class-based affirmative action policy in 2012; yet, its relevance to the future of affirmative action policy in the US is limited because it is not race-neutral and also uses quotas, a practice that is unconstitutional in the US. Moreover, it will take years before we can assess the outcome of this policy in Brazil.

within them, give an actual edge in admissions to applicants from disadvantaged background that were found eligible. This is not trivial because the preferences under the Israeli program are voluntary. Moreover, because the application and admission processes in Israel are major-specific the departments enjoy discretion of whether and whom to admit. To our knowledge, the question regarding the causal effect of race-based affirmative action policy on admission outcomes and field of study destinations has not been addressed in the literature, which is mainly based on racial preferences in the United States. This is because of the inability to link the admission decision to the specific fields of study and also because of the problems of identifying AA applicants and admits in US datasets and ascertaining the appropriate comparison group.

In this study we use the Israeli case study to obtain causal estimates for the effect of a voluntary admission policy on admission and enrollment rates, especially at the more competitive programs. We benefit from the design of the Israeli program and exploit a discontinuity in the eligibility for the program (that allows a regression discontinuity (RD) design); the rich dataset based on applicants' transcripts and the institutions' decisions, especially the information on the choice of major and the individual's affirmative action status; and the fact that both the application and admission processes are major-specific.

Moreover, for realizing the potential of the policy to boost diversity and shape social and economic mobility a degree needs to be attained. There are claims, however, that affirmative action sets up its beneficiaries for failure because they are unprepared to succeed academically (Graglia 1993; Sowell 2003; Thernstrom and Thernstrom 1997). This argument, known as the "mismatch hypothesis," was most recently used by Justice Thomas in his concurring opinion in the Fisher decision (2013:17): "There can be no doubt that the University's discrimination injures white and Asian applicants who are denied admission because of their race. But I believe the injury to those admitted under the University's discriminatory admissions program is even more harmful. Blacks and Hispanics admitted to the University as a result of racial discrimination are, on average, far less prepared than their white and Asian classmates." The main challenge in identifying the casual effect of receiving affirmative action on matriculation outcomes arises because of the spurious correlation between eligibility for affirmative action and socioeconomic and academic disadvantage (which is also correlated with success in university).

Most studies try to address the issue of the individual-*institutional* mismatch by adjusting for observed characteristics but it is likely that many unobserved differences remain (see Alon

and Tienda 2005; Bowen and Bok 1998; Kane 1998; Loury and Garman 1995). Moreover, since affirmative action students cannot be singled out, these studies generally use race or ethnicity as a proxy for AA eligibility. Recently, there are few studies that focus on the individual-*major* mismatch. For example, Arcidiacono, Aucejo, and Hotz (2013) show the vast majority of minority students at the University of California would be more likely to graduate with a science degree and graduate in less time had they attended a lower ranked university (see also Arcidiacono, Aucejo, and Spenner 2012). However, these findings are only suggestive of the causal effect of affirmative action policy on graduation rates and the type of degree obtained because they also use race and ethnicity as a proxy to affirmative action status. The design of the Israeli program and the detailed dataset provide a unique opportunity to assess the causal effect of an affirmative action policy on the success in university studies of disadvantage populations, including their likelihood to graduate from the more selective fields of study.

2. Data and Variables

We obtained institutional administrative data from the four Israeli universities which implemented the affirmative action program —Tel-Aviv University (TAU), The Hebrew University (HUJI), The Technion (TEC), and Ben- Gurion University (BGU). The affirmative action policy began in 2001 at HUJI; 2003 at TAU; 2004 at TEC; and 2006 at BGU. For each university, we have data from the start of the affirmative action program and until 2008. Consequently, the data yields eight years of admission observations under the AA regime at HUJI, six at TAU, five at TEC, and three at BGU. There was a total of 10,457 applications for affirmative action status among all four universities between 2001 and 2008. However, a number of these represent multiple applications for the same individual. We restrict attention to the first-time application for affirmative action submitted by 8,031 unique individuals. In order to consider a more homogenous group, we focus our attention on Jewish applicants. These restrictions result in final sample of 5,999 individuals who applied for affirmative action at one of the four universities. For the sake of parsimony, we report aggregated results although the results for individual institutions look similar (and are available upon request).

Table 1 reports summary statistics for all applicants to the four universities under the AA regime, including who did not apply for affirmative action, by AA status: AA-eligible (above cutoff); Non AA-eligible (below cutoff)); and all other applicants. Approximately 58 percent of

applicants who applied for preferences were deemed eligible for affirmative action based on the 30-point threshold.

Field of study selectivity: we use an index of selectivity created by Alon (2011) to measure the selectivity of majors to which students applied and to which they were accepted. It is the sum of the standardized scores of the admission rate (reverse coded) and mean psychometric score of each department. All the departments in the four institutions were ranked and then classified into selectivity quintiles. In the current study we define selective majors as those in the top two selectivity quintiles. Since applicants can apply to multiple majors and students can have dual majors, each individual is classified according to the most selective major she applied to, was admitted to, and enrolled in.

Application/admission outcomes: we consider whether applicants were admitted; whether applicants applied to a selective major; whether applicants were admitted to a selective major; whether applicants enrolled; and whether they were enrolled at a selective major. Among university applicants who did not apply for affirmative action, the fraction who were admitted and the fraction who enrolled in one of the four universities was 64 percent and 51 percent, respectively. Among AA-eligible applicants the respective shares were 64 and 57 percent. Both the admission rate and the share of enrolled students is the lowest among those who applied to the AA program but found to be ineligible.

Matriculation outcomes: among those students who end up enrolling in one of the four universities, we also have a set of matriculation outcomes based on grades and graduation: first year GPA across all majors; final GPA at graduation; graduation status; and graduation from a selective major. Both AA groups, AA-eligible and Non AA-eligible, have similar grades, on average, by the end of the first year, and upon graduation although they are lower than those obtained by other students. On average, the non-AA eligible students are the group with the highest graduation rate followed by AA-eligible students.

Covariates: we consider several covariates in our empirical analysis. These include gender, age, as well as the matriculation diploma grades (Bagrut) and the psychometric test score which together form the composite score on which admission is determined. We also have complete information about the institution and the year of application, which we control for in our regression analysis.

3. Empirical Strategy

We employ a regression discontinuity (RD) design to estimate the effect of eligibility for affirmative action in the four selective universities in Israel. Since eligibility is determined according to a simple eligibility cutoff, we are able to compare outcomes across applicants and students with similar levels of economic disadvantage and other characteristics, but very different likelihoods of receiving affirmative action. This corresponds to a "sharp" RD design and the standard regression model used throughout the analysis is as follows:

$$outcome_{ijt} = X_{ijt}'\beta + \delta * AA\ Eligible_{ijt} + f(AA\ Score_{ijt}) + \lambda_j + \psi_t + \varepsilon_{ijt}$$

where $outcome_{ijt}$ represents a particular admission or matriculation outcome for applicant or student i in university j of cohort t , X_{ijt} represents a basic set of control variables that includes gender, age, psychometric score, and average grades on the school-leaving matriculation exams. λ_j represents fixed effects for each institution and ψ_t represents fixed effects for each year of application. $AA\ Eligible_{ijt}$ is equal to 1 for applicants who received a score 30 or above on their affirmative action evaluations and were therefore eligible for receiving affirmative action. The coefficient δ , our main coefficient of interest, indicates the effect of eligibility for affirmative action on any given outcome. Finally, $f(AA\ Score_{ijt})$ is a smooth function of the affirmative action score, which is the forcing variable that determines the eligibility of affirmative action. The central assumption underlying the RD design is that we have correctly specified the function of eligibility, $f(AA\ Score_{ijk})$. To make sure this assumption holds in the current analyses we examine several parametric and non-parametric specifications.

Table 1: Selected Characteristics by AA Status

	AA eligible	Non-AA eligible	All other applicants
<i>Admission outcomes</i>			
Admitted	0.637	0.552	0.642
Admitted to Selective Major	0.249	0.183	0.283
Enrolled	0.570	0.464	0.510
Enrolled in Selective Major	0.434	0.410	0.471
Applied to Selective Major	0.710	0.727	0.696
<i>Matriculation outcomes</i>			
First year GPA	77.755	78.184	81.217
Graduation GPA	83.759	84.012	86.399
Graduation	0.675	0.702	0.651
Graduated w/ Selective Major	0.384	0.391	0.419
<i>Demographics</i>			
Female	0.589	0.580	0.536
Psychometric	602.936	615.672	646.534
Bagrut	96.966	97.520	100.874
Age	22.527	22.227	22.102
<i>Cohort</i>			
Applied in 2001	0.039	0.056	0.042
Applied in 2002	0.059	0.054	0.045
Applied in 2003	0.143	0.359	0.108
Applied in 2004	0.138	0.062	0.127
Applied in 2005	0.144	0.076	0.126
Applied in 2006	0.154	0.190	0.187
Applied in 2007	0.151	0.113	0.188
Applied in 2008	0.172	0.092	0.177
<i>Institution</i>			
Tel-Aviv University	0.359	0.475	0.362
Ben Gurion University	0.117	0.053	0.173
Hebrew University	0.506	0.462	0.343
Technion	0.017	0.010	0.121

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