

Estimating the size and impact of Affirmative Action in South African Higher Education

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Outline

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Introduction

- ▶ Affirmative action is seen as a way to make redress for a long history of racial discrimination.
- ▶ Returns to education are very high in SA.
- ▶ Distributions of both income and education by race remain highly skewed.
- ▶ Recent discussions about whether a class based affirmative action policy may be more desirable than a race based one.

Questions

- ▶ For any AA policy, who are the individuals that gain and lose in terms of admissions?
- ▶ What are the labour market implications?
- ▶ Mismatch hypothesis.
- ▶ Is there a way to measure aggregate social welfare effects?

International Literature

- ▶ US: Texas, California, Michigan (several authors)
 - ▶ Outlawing the use of race in admissions leads to sharp decreases in minority enrolments.
 - ▶ Also a reduction in minority applicants.
 - ▶ Some evidence that targeted recruitment programs can offset these effects.

International Literature

- ▶ India (caste based): Bertrand et al, JPubE,2010
 - ▶ AA successfully targets financially disadvantaged.
 - ▶ Low caste entrants obtain a positive return to admission.
 - ▶ But female enrolments get hurt
- ▶ Brazil: Francis and Tannuri-Pianto (EER, 2012 and JHR 2012)
 - ▶ AA at Univ. Of Brasilia in 2004,
 - ▶ Raised proportion of black students
 - ▶ Displacing students from lower SES backgrounds than those displaced.

UCT Admissions Policy

- ▶ Lots of debate- but limited use of actual data.
- ▶ What would the offer distribution look like under a “race-blind” admissions policy?
- ▶ In looking at offers we are focusing on one particular part of the process that leads to a particular cohort enrolling at UCT
- ▶ The UCT admissions policy takes race into account in two ways
 - ▶ Through differential points requirements in the mainstream programmes.
 - ▶ Through extended programmes that only black, coloured, chinese and Indian students qualify for.

UCT Admissions Policy

- ▶ In practice the policy seems to work by a system of targets/quotas in mainstream programmes and also through extended programmes.
- ▶ From the 2013 admissions policy document: “The following example which applies to applicants for [Medicine] illustrates this. It relates to applicants who categorise themselves as black South African. We set a target number which we hope to give to qualified black South African applicants. This will be a proportion of the 200 places we have for the MBChB class. We set this target because we aim for a diverse MBChB class, and in order to give redress to black South Africans.”
- ▶ From the 2011 admissions policy document: “We set overall enrolment targets and equity targets per programme. These are aspirational targets, not quotas. All faculties will aim to admit specified minimum numbers of eligible South African Black, Chinese, Coloured and Indian students in accordance with these targets.”

Application Data

- ▶ We have data from 2007 and 2013 academic years. We have financial aid data only for 2013.
- ▶ We have data on all undergraduate first entry applicants and the programmes they applied for.
- ▶ We simulate what the offer distribution would look like if we used an alternative race blind selection rules.
- ▶ Our work will be on applications, not applicants. Most applicants make 2 applications.
- ▶ We ignore foreign students- they are treated separately and anyway cannot be ranked by the same scores as South Africans.
- ▶ We use two outside sources of data in addition to application data:
 - ▶ A database of all students registered at public higher education institutions in South Africa, which we link with 2007 applicants.
 - ▶ Census 2011 Small area data, which we link with physical addresses given by 2013 applicants using Google Maps API.

Table: APPLICATIONS, OFFER AND COUNTERFACTUAL DISTRIBUTION

	Applications		Actual Offers		Counterfactual Offers	
	<i>Application</i>	%	<i>Offer</i>	%	<i>Offer</i>	%
2007						
Population Group						
Black	7067	45.80	2277	31.54	1785	24.81
Chinese	24	0.16	18	0.25	19	0.26
Coloured	2037	13.20	1012	14.02	859	11.94
Indian	1388	9.00	765	10.60	890	12.37
NA/Unknown SA	460	2.98	211	2.92	214	2.97
White	4454	28.87	2937	40.68	3429	47.65
Total	15430	100.00	7220	100.00	7196	100.00
2013						
Population Group						
Black	14970	48.24	3029	32.26	2226	23.76
Chinese	152	0.49	84	0.89	80	0.85
Coloured	4399	14.18	1382	14.72	1047	11.18
Indian	2829	9.12	1194	12.72	1246	13.30
NA/Unknown SA	1480	4.77	478	5.09	586	6.25
White	7200	23.20	3221	34.31	4184	44.66
Total	31030	100.00	9388	100.00	9369	100.00

Source: Own calculations from UCT 2007 and 2013 applicant data. CF Offer is the simulated counter-factual offers.

The extent of AA at UCT

- ▶ In 2007 the percentage of applications from black and coloured applicants made an offer decreases from 33% to 28% and 50% to 42% respectively under our simulated race blind admissions policy.
- ▶ The percentage of applications from white students made an offer increases from 66% to 77% under our simulated race blind admissions policy in 2007.
- ▶ The percentage of applications from Indian students made an offer increases from 55% to 65% under our simulated race blind admissions policy in 2007.
- ▶ Most applications are either always rejected or always accepted- about 17% are affected by our simulated change in policy in 2007 (11.5% in 2013).
- ▶ The results for 2013 are similar although acceptance rates are much lower for all population groups.

Is the admissions policy well targeted?

- ▶ Are the black, coloured and Indian students who benefit of lower socioeconomic status?
- ▶ Use two measures:
 - ▶ Financial aid application and eligibility.
 - ▶ Per capita income in the Census small areas in which applicants live (only do for displaced and displacing).
- ▶ We can also check how well correlated our two measure are.

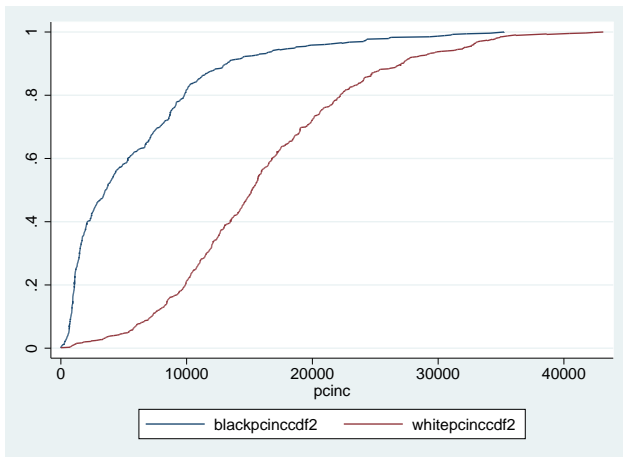
Financial Aid applications and Eligibility

Table: 2013 FINANCIAL AID APPLICATIONS AND ELIGIBILITY

Population Group	Did not Apply		Ineligible		Eligible	
	<i>Num</i>	<i>%</i>	<i>Num</i>	<i>%</i>	<i>Num</i>	<i>%</i>
Black	5952	39.76	1130	7.55	7888	52.69
Chinese	130	85.53	6	3.95	16	10.53
Coloured	2007	45.62	647	14.71	1745	39.67
Indian	2119	74.90	266	9.40	444	15.69
NA/Unknown	1004	67.84	101	6.82	375	25.34
White	6399	88.88	327	4.54	474	6.58
Total	17611	100.00	2477	100.00	10942	100.00
Displacement Status						
Displacing	830	45.70	266	14.65	720	39.65
Displaced	1361	75.74	148	8.24	288	16.03
Displacing Black	377	36.08	138	13.21	530	50.72
Displaced White	973	87.58	49	4.41	89	8.01

Source: Own calculations from UCT 2013 applicant data. % are row percentages.

Figure: WELFARE MEASURE TWO: SMALL AREA PER CAPITA INCOME CDFS.



Source: Own calculations from UCT applicant and Census 2011 Small Area data. PCInc is monthly per capita income in the small area in Rand. Rand/ US dollar exchange rate was about 8:1 at the time of Census 2011.

Correlation of welfare measures

Table: CORRELATION OF PER CAPITA INCOME AND FINANCIAL AID ELIGIBILITY

Per capita income	Did not Apply		Eligible		Ineligible	
	<i>Num</i>	<i>Col %</i>	<i>Num</i>	<i>Col %</i>	<i>Num</i>	<i>Col %</i>
Quintile 1	104	8	282	44	46	18
Quintile 2	197	16	160	25	75	29
Quintile 3	268	21	92	14	72	28
Quintile 4	316	25	70	11	47	18
Quintile 5	371	30	39	6	20	8

Source: Own calculations from UCT 2013 applicant data and Census 2011 Small Area public release data. PCinc is monthly per capita income in the small area in Rand. Only the displaced and displacing students from 2013 are included in this table.

Possible Mismatch?

Table: ENROLLMENT AND GRADUATION RATES

	<i>EnrollmentRate</i>	<i>GraduationRate</i>
Displacing	91.68	62.88
Displaced	94.00	78.90
Displacing Black	90.54	59.88
Displaced White	92.05	77.87

Source: Own calculations from UCT 2007 applicant data and matched 2007 HEMIS data.

Conclusions

- ▶ The admissions policy does have important effects on the offer distribution by population group. But only about 17% of applications are affected
- ▶ Using two measures of disadvantage our results suggest that the beneficiaries of the policy are generally of much lower SES than those disadvantaged by the policy (not surprising given the high levels of inequality by race).
- ▶ Mismatch? Needs more work.