



Race and Opportunity in the Transition from School to Higher Education in South Africa

Michael Cosser*

Abstract

While South Africa is well into its second decade of democracy, higher education opportunities in the country remain different for different race groups. Black African learners are not represented in the first-year higher education enrolment profile (the intake of learners who proceed to higher education directly from school) in relation either to their representation in the general population or to their aspirations for entry into higher education. This much emerges from a triangulation of the findings of two surveys of Grade 12 learner aspirations for higher education study, conducted in 2001 and 2005, with analyses of the Higher Education Management Information System (HEMIS) enrolment profiles of 2002 and 2006. That the 2001–02 aspiration-enrolment disjunction is replicated in the 2005–06 study, moreover, confirms the slow pace of educational transformation in the new democratic order. The key conclusion drawn from the juxtaposition of these two studies is that discrimination, while not overt, remains entrenched in South African educational pathways by virtue of the differential opportunities available to learners of different races – opportunities that are a function largely of socio-economic status (SES) and of the differential horizons for action which SES opens up for learners.

Résumé

Alors que l’Afrique du Sud est bien dans sa deuxième décennie de démocratie, les opportunités de l’enseignement supérieur dans le pays restent différentes selon les races. Les apprenants noirs Africains ne sont pas représentés dans le profil d’inscription (l’admission d’élèves qui terminent l’école pour passer directement à l’enseignement supérieur) en première année de l’enseignement supérieur, soit par rapport à leur représentation dans la population en général ou à leurs aspirations pour l’entrée dans l’enseignement supérieur. Ceci émerge en grande partie d’une triangulation des résultats de deux études sur les aspirations des élèves de terminale

* Chief Research Specialist Education, Science and Skills Development (ESSD), Human Sciences Research Council.

pour l'enseignement supérieur, menées en 2001 et 2005, avec des analyses des profils d'inscription du Système d'information de gestion de l'enseignement supérieur (HEMIS) en 2002 et 2006. Le fait que l'aspiration en 2001-02, la disjonction de l'inscription, se soit reproduite dans l'étude de 2005-06 confirme par ailleurs la lenteur de la transformation de l'éducation dans le nouvel ordre démocratique. La principale conclusion tirée de la juxtaposition de ces deux études est que la discrimination, tout en n'étant pas ouverte, reste ancrée dans les cycles de l'éducation en Afrique du Sud en raison de l'écart des opportunités offertes aux apprenants des différentes races ; des opportunités qui sont largement fonction du statut socio-économique (SES) et de l'écart des horizons d'action que le SES ouvre pour les apprenants.

Introduction

From within and outside its borders, South Africa is perceived to have achieved a miraculous transformation from *apartheid* rule to a democratic order. In many ways this perception is accurate: South Africa has a constitution and Bill of Rights that entrench rights for all, and the lot of many of its citizens has been improved in the fifteen years since the transition to democracy. In the educational arena, the new dispensation has seen the establishment, among other things, of a single, co-ordinated schooling system (Republic of South Africa 1996, 1998), the restructuring of the further education and training (Republic of South Africa 2006) and higher education systems (Republic of South Africa 1997) and the passing of legislation that paves the way for the transformation of the adult basic education and training (ABET) (Republic of South Africa 2000) system. The South African Qualifications Authority (SAQA) Act objectives of 'creat[ing] an integrated national framework for learning achievements' and of 'accelerat[ing] the redress of past unfair *discrimination* in education, training and employment opportunities' (Republic of South Africa 1995: clause 2; emphasis added) appear indeed to have been realized.

While the *framework* for educational transformation is clearly in place, however, the extent to which actual transformation on the ground has been achieved is questionable. One way of assessing whether transformation has occurred is to ascertain whether the various pieces of legislation that have been enacted, both separately and in combination, translate into enhanced educational opportunity – particularly, in the context of the 'redress of past unfair discrimination' quoted above, opportunity for learners of all races to pursue, with equal opportunity, educational pathways of their choice in the pursuit of qualifications. Against this backdrop, this paper examines the school/higher education transition point to ascertain the extent to which Grade 12 learners of all races have been able to fulfil their aspirations of proceeding to higher education and of studying in their chosen areas. The paper explores the extent to which

discrimination lives on in the education arena – specifically, the differential opportunities open to learners of different races as they proceed to higher education as measured by enrolment rates in higher education institutions the year after school and the extent to which aspirations are translated into enrolments.

The paper begins by setting out the parameters within which the notion of discrimination in learning pathways can be considered. It proceeds to compare the findings of a 2001 baseline study of the higher education aspirations of Grade 12 learners across all nine provinces of South Africa with the higher education enrolment profile for 2002. This transition is then juxtaposed with a second such passage four years later: the findings of another baseline study of the aspirations of Grade 12 learners for higher education study – this time pertaining to the 2005 cohort – are compared with the higher education enrolment profile for 2006. The paper concludes with a discussion of the implications of the findings of both transition point studies for analyses of discrimination in access to higher education in South Africa.

Discrimination in the Divergence of Learning Pathways

While 1994 cannot be held up as the year in which all structural racism in South Africa ceased, it is undeniable that, with the formal demise of the *apartheid* state in that year, institutions of higher learning in South Africa increasingly began opening their doors to students of all races (Bunting 2002a). The participation rate of black African students in higher education in 1993 was 9 per cent (as against 75 per cent black African representation in the general population), that of white students 70 per cent (as against 13 per cent white representation in the general population) (Bunting 2002b) – percentages that reflect directly the state policy of promoting white student access to higher education rather than access for black African students.

It might be supposed, given the statutory death of *apartheid*, that institutional discrimination against black Africans would have diminished, if not disappeared, in the wake of the 1994 transition to democracy. The 1994 student enrolment distribution in the South African higher education system was 43 per cent black African, 5 per cent coloured, 7 per cent Indian/Asian, and 45 per cent white (Department of Education 2009). A consideration of the racial breakdown of enrolments in 2006 – thirteen years into democracy – reveals that three out of five students (61 per cent) were black African, 7 per cent each were coloured and Indian/Asian, and 25 per cent were white. In other words, there was a 42 percentage point increase in black African enrolments between 1994 and 2006, a 40 percentage point increase in coloured enrolments, Indian/Asian enrolments remained static (at 7 per cent), and there was a 44 percentage point *decrease* in white enrolments over the period. There is an inverse relationship, therefore, in the black African/

white enrolment pattern over the thirteen-year period. But the distribution still fails to represent the proportion of 15- to 24-year-olds in the general population – which in 2006 was 83 per cent black African to 8 per cent coloured, 2 per cent Indian/Asian and 7 per cent white (Statistics South Africa 2009). Why is this?

Measuring Discrimination

As Aguero (2005) points out, however sweepingly, in his review of the literature on measuring discrimination, during the *apartheid* era in South Africa and before the Civil Rights movement in the United States (US) there were laws that separated groups of the population. In South Africa, indeed, clear distinctions were drawn, and actual geophysical divisions created, between four major races: black Africans, coloureds, Indian/Asians, and whites. In the US, many racial groups (now officially delineated as black or black African Americans, American Indians/Asians or Alaskan Natives, Asians, Native Hawaiians or other Pacific Islanders, and whites) as well as the ethnic group Hispanics (who may be of any race) have historically faced severe discrimination: pervasive and open denial of civil, social, political, educational and economic opportunities (Blank, Dabady and Citro 2004). The practice of the *apartheid* and pre-Civil Rights Movement eras, then – a practice epitomized in the discourse of employment advertisements that appeared in the US during those times (Darity and Mason 1998) – was to discriminate on the basis of race.

The apparent disappearance of such *direct* evidence of discrimination hardly implies that discrimination has ended, however; rather, its historical effects are now seen in the differential opportunities open to different race groups. Large differences in outcomes among racial and ethnic groups continue to exist in employment, income and wealth, housing, education, criminal justice, health, and other areas. Although many factors may contribute to such differences, their size and extent, as Blank, Dabady and Citro (2004) asseverate, suggest that various forms of discriminatory treatment persist in US society and serve to undercut the achievement of equal opportunity. The same, of course, is true of South African society, where the systematic implementation of *apartheid* policies over a 45-year period (1948–93) entrenched differential opportunity, the legacy of which will be seen for years to come.

Discrimination, according to this conception, is not a phenomenon that occurs at one point in time in a particular process or stage of a particular domain – an episodic view – but a dynamic *process* that functions throughout the stages within a domain, across domains, across individual lifetimes, and even across generations (Blank, Dabady and Citro 2004). Discrimination against prior generations, on this reading, may diminish opportunities for present generations *even in the absence of current discriminatory practices*.

Institutional Racism

Discrimination is perpetrated, among other ways, through institutional racism. A term first used in the American literature (Carmichael and Hamilton 1967; Knowles and Prewitt 1969; Blauner 1972), ‘institutional racism’ refers to the effects of institutional operations that ‘systematically reflect and produce racial inequalities’ (Jones 1972: 131). Most definitions of institutional racism – like the one proffered here by Jones – subsume the notion of *unintentional* discrimination, emphasizing the discriminatory *effects* of institutional practice (Phillips 1987). On this reading, racial inequalities are simply the ‘unintended consequences’ of normal institutional practices (Scarman 1981).

In the education sphere, racism manifests itself in the persistence of ‘significant inequalities of opportunity’ Gillborn (1999: 90). It is this thesis which the current paper seeks to confirm.

Measuring Racial Discrimination in Learning Pathways

In the context of learning pathways, discrimination has to do with the ways in which differential opportunities for progression are available to different race groups. Accordingly, this paper, in comparing two transitional moments (the transition of Grade 12 learners to higher education between 2001 and 2002 and between 2005 and 2006), attempts to measure the extent to which racial transformation of higher learning opportunity has taken hold in South Africa – more specifically, between the first and second decades (1994–2003, 2004–) of democratic rule in the country. The unit of measurement is the percentage of students of the four major race groups enrolled in higher education institutions set against the aspirations of the Grade 12 learner cohort for higher education. In other words, the paper explores the extent to which the aspirations of Grade 12 learners to enter higher education are realized in the year following the articulation of their aspirations as measured by learner uptake in higher education institutions and programme areas.

Limitations of the Approach

Establishing that discriminatory treatment or impact has occurred and measuring its effects on outcomes, as Blank, Dabady and Citro (2004) point out, requires very careful analysis to rule out alternative explanatory factors. Measuring discrimination through an analysis of the differential enrolment patterns of students of different race groups in higher education institutions in relation to initial learner aspirations is, against this cautionary, hardly definitive. But it is a first step in the process of establishing whether racial difference in aspiration and enrolment and in the relationship between these two phenomena is attributable

more to historical discrimination than to factors non-racial in nature. Further research, then, will need to delineate more carefully how racial discrimination can be measured and its effects on opportunities for learning isolated.

Methodology

In 2001, a team of researchers at the Human Sciences Research Council (HSRC) undertook a study of Grade 12 learner aspiration to enter higher education (HE). A predominantly closed-ended survey was distributed to a random sample of learners stratified by province and by school pass rate in the 2000 Senior Certificate Examination.¹ The representativeness of the response profile allowed for generalization of the findings to the entire Grade 12 learner population.

In the year following the aspiration survey, an analysis of HEMIS data² was undertaken to establish the enrolment profile of students in HE institutions and in the programmes they offer.

In 2005 the research team was again afforded the opportunity to mount a similar study. This time 20,659 survey returns were obtained. Once again, the response profile was sufficiently representative of the general population of Grade 12 learners to allow for generalization of the findings to that population.

In 2007, analysis of HEMIS data on student enrolments in 2006 once again afforded the research team the opportunity to establish the first-time entry profile of students who were in Grade 12 the previous year.

Since race is a variable that features prominently in both transition studies, it is possible, both separately (for each transition study) and in combination, to compare: black African, coloured, Indian/Asian and white learner responses to questions about aspiration to proceed to higher education; the HE aspiration and enrolment profiles of the four race groups, both individually and in relation to each other; and, from an analysis of the HEMIS data, the subject enrolment profiles of the four groups.

Accordingly, all three types of comparison are made in the paper.

Findings of the Surveys

This section of the paper presents the pertinent findings of the two surveys and of the concomitant analyses of the HE enrolment profiles for the years following the surveys upon which the subsequent analysis of discrimination is based. The presentation takes the form of a comparison of the two transitions.

The 2001–02 Transition Study***Aspiration versus Enrolment***

The percentage of learners in the 2001 aspiration survey who intended entering HE within three years of the survey date (i.e., in 2002, 2003 or 2004) – if we factor out those who were unsure (14 per cent) – was 84 per cent. A disaggregation of these data by race shows that 86 per cent of black Africans, 70 per cent of coloureds, 92 per cent of Indian/Asians and 81 per cent of whites planned to proceed to higher education within three years of the survey date.

Table 1 compares Grade 12 learner aspirations to enter HE in 2002 with actual first-time entering student enrolments (students who were in Grade 12 the previous year) in 2002.

Table 1: Aspiration to enter HE in 2002, enrolments in 2002 of students who were in Grade 12 in 2001, and representation in the general population aged 15–24³ in 2002, by race⁴

Category	BA	C	I/A	W	Total
Aspiration to enter HE in 2002	83.5	5.5	3.8	7.2	100.0
Enrolment in HE in 2002	53.2	7.7	8.6	30.5	100.0
General population aged 15–24 in 2002	82.0	8.3	2.3	7.4	100.0

Key: BA = Black African, C = Coloured, I/A = Indian/Asian, W = White

Source: Author's own table, derived from Cosser with du Toit (2002); Department of Education (2002a, 2002b); Statistics South Africa (2009)

As Table 1 shows, there is a strong correlation between the percentages of learners of the four race groups who aspired to enter HE in 2002 and the distribution of 15–24-year-olds within these race groups in the general population – which indicates, if nothing else, the representivity of the HE aspiration response profile. So, for example, while 83.5 per cent of learners who aspired to enter HE in 2002 were black Africans, black Africans made up 82.0 per cent of the population of the country aged 15–24 in 2002.

However, the enrolment profile is profoundly out of step with this correlation. Thus only 53.2 per cent of first-time enrolments in HE institutions in 2002 were black African, in relation to black Africans' 82.0 per cent represen-

tation in the general population of 15–24-year-olds. And at the other end of the spectrum, 30.5 per cent of first-time enrolments in HE institutions in 2002 were white, in relation to whites' 7.4 per cent representation in the general population of 15–24-year-olds.

Institutional Preference and Enrolment

Table 2 outlines the profile of institutional preferences in 2001 and enrolments in 2002⁵

In the case of two-thirds of the institutions (23 out of 35), the ratio of black African to white student enrolments is heavily skewed towards whites in relation to preference for study in those institutions. In other words, proportionately far fewer black students have enrolled in these institutions than had wanted to enrol in them. The differentials between black African learner preference for study in a particular university and black African student enrolment in that university are the following:

University of Pretoria:	62.5 per cent
Rhodes University:	56.8 per cent
University of Natal:	49.9 per cent
University of Port Elizabeth:	44.8 per cent
University of Durban-Westville:	44.0 per cent
University of the Witwatersrand:	43.0 per cent
Potchefstroom University:	42.7 per cent
Rand Afrikaans University:	42.4 per cent
University of Cape Town:	32.8 per cent
University of the Free State:	32.7 per cent
Medical University of SA:	16.4 per cent
University of the Western Cape:	15.2 per cent
University of Stellenbosch:	11.8 per cent
University of Zululand:	11.6 per cent

Table 2: Grade 12 learner institutional preferences in 2001 and student enrolments in 2002, by race

University	Preference in 2001					Enrolment in 2002				
	BA	C	I/A	W	Total	BA	C	I/A	W	Total
University of Cape Town	60.9	11.9	7.4	19.8	100.0	28.1	15.0	8.2	48.8	100.0
University of Durban-Westville	93.6	0.7	4.4	1.3	100.0	49.6	1.8	47.3	1.2	100.0
University of Fort Hare	95.6	2.3	1.0	1.1	100.0	99.8	0.2	0.0	0.0	100.0
Medical University of SA	99.3			0.7	100.0	82.9	0.3	13.0	3.8	100.0
University of Natal	71.5	1.6	24.4	2.5	100.0	21.6	2.9	49.8	25.7	100.0
University of the North	97.0			3.0	100.0	99.2	0.2	0.2	0.5	100.0
University of the Free State	68.6	14.4		17.0	100.0	35.9	5.9	1.7	56.7	100.0
University of Port Elizabeth	65.0	5.6	3.5	25.8	100.0	20.2	12.3	4.5	63.0	100.0
Potchefstroom University	48.5	8.6		42.9	100.0	5.8	3.3	1.1	89.8	100.0

Table 2: Grade 12 learner institutional preferences in 2001 and student enrolments in 2002, by race (Contd)

University	Preference in 2001					Enrolment in 2002				
	BA	C	I/A	W	Total	BA	C	I/A	W	Total
University of Pretoria	77.5	1.6	1.2	19.8	100.0	15.0	1.4	5.8	77.7	100.0
Rand Afrikaans University	55.0	5.6	1.8	37.6	100.0	12.6	3.8	9.3	74.3	100.0
Rhodes University	82.4	3.3	3.5	10.8	100.0	25.6	4.1	7.4	62.9	100.0
University of Stellenbosch	13.6	35.2		51.2	100.0	1.8	12.9	1.3	84.1	100.0
University of the Western Cape	47.0	47.1	3.9	2.0	100.0	31.8	57.4	10.3	0.5	100.0
University of Witwatersrand	87.7	1.3	5.2	5.8	100.0	44.7	2.6	20.2	32.6	100.0
University of Zululand	100.0				100.0	88.4	0.3	1.8	9.5	100.0
Vista University	97.7	1.1		1.1	100.0	100.0				100.0
Transkei University	93.6	4.2		2.1	100.0	97.0	1.5	1.5		100.0
University of the North West	91.2	8.8			100.0	99.3		0.3	0.3	100.0
University of Venda	100.0				100.0	99.8		0.1	0.1	100.0

Table 2: Grade 12 learner institutional preferences in 2001 and student enrolments in 2002, by race (Contd)

Technikon	Preference in 2001					Enrolment in 2002				
	BA	C	I/A	W	Total	BA	C	I/A	W	Total
Cape Technikon	62.5	29.7	1.6	6.2	100.0	32.5	28.1	1.9	37.4	100.0
Technikon Northern Gauteng	98.8	0.4		0.8	100.0	99.7	0.2	0.0		100.0
Mangosuthu Technikon	97.6			2.4	100.0	99.9		0.1		100.0
ML Sultan Technikon	91.0	1.0	8.0		100.0	67.9	1.1	29.1	1.9	100.0
Technikon Natal	88.9	2.5	8.2	0.4	100.0	69.6	2.3	20.5	7.6	100.0
Technikon Free State	79.8	12.7		7.5	100.0	65.7	5.8	0.5	28.0	100.0
Peninsula Technikon	81.5	15.3		3.2	100.0	63.2	34.2	0.3	2.3	100.0
Port Elizabeth Technikon	84.4	7.7	0.4	7.5	100.0	50.1	14.2	2.4	33.3	100.0
Technikon Pretoria	95.8	1.0	0.2	3.0	100.0	70.7	1.9	1.7	25.7	100.0

Table 2: Grade 12 learner institutional preferences in 2001 and student enrolments in 2002, by race (Contd)

Technikon	Preference in 2001					Enrolment in 2002				
	BA	C	I/A	W	Total	BA	C	I/A	W	Total
Technikon South Africa	97.4	0.9		1.7	100.0	83.0	3.5	2.3	11.2	100.0
Technikon Vaal Triangle	94.4	5.1		0.5	100.0	92.8	1.0	0.4	5.8	100.0
Technikon Witwatersrand	96.4	1.9	0.3	1.3	100.0	83.8	2.5	4.1	9.6	100.0
Border Technikon	100.0				100.0	98.8	0.5		0.8	100.0
Technikon North West	98.0			2.0	100.0	100.0				100.0
Eastern Cape Technikon	96.6	1.1		2.4	100.0	99.8	0.2			100.0
Total	85.8	5.2	2.5	6.5	100.0	53.2	7.7	8.6	30.5	100.0

Source: Author's own table, derived from Cosser with du Toit (2002); Department of Education (2002a, 2002b)

The differentials between black African learner preference for study in a particular technikon and black African student enrolment in that technikon are the following:

Port Elizabeth Technikon:	34.3 per cent
Cape Technikon:	30.0 per cent
Technikon Pretoria:	25.1 per cent
ML Sultan Technikon:	23.1 per cent
Technikon Natal:	19.3 per cent
Peninsula Technikon:	18.3 per cent
Technikon South Africa:	14.4 per cent
Technikon Free State:	14.1 per cent
Technikon Witwatersrand:	12.6 per cent

None of the technikons and only two of the universities (Medical University of South Africa and the University of Zululand) are classified as historically disadvantaged black African institutions. The preference-enrolment differentials are greatest, then, where African students have enrolled in historically advantaged white institutions.

From a programmatic perspective, learners' preferences in 2001 and student enrolments in 2002 are juxtaposed in Table 3.

This profile shows that there are no significant differences between the four race groups with regard to the relationship between preference for the Natural and Mathematical Sciences and enrolment in this area: in every case more students enrolled in this area in 2002 than had wanted to in 2001. Higher percentages of black African and coloured learners than of Indian/Asian and white learners planned to enrol in Engineering and Other Applied Sciences programmes than did so. Higher percentages of black African, coloured and Indian/Asian learners than white learners planned to enrol in the Health Sciences than did so. A higher percentage of African learners enrolled in Business/Commerce than had planned to do so – in contradistinction to the profile for the other three groups, where lower percentages enrolled than planned to do so. (The differential is particularly marked for whites: 34.7 per cent wanted to enroll in this area; only 20.7 per cent did so.) Education enrolments are higher than study preferences for three of the four groups, but only marginally so. Enrolments in the Social Sciences are markedly higher than preference for study in this area for all four race groups. Coloured enrolments in the Humanities

Table 3: Programme of HE study preferred in 2001 and programme enrolments in 2002, by race, in descending order of preference by total, 2001

Programme	Preference in 2001				Enrolment in 2002			
	BA	C	I/A	W	BA	C	I/A	W
Natural and Mathematical Sciences	10.1	10.5	14.8	13.3	15.1	16.9	19.2	19.4
Engineering and Other Applied Sciences	24.0	19.1	17.8	16.5	15.5	12.2	15.2	12.7
Health Sciences	14.3	17.3	22.9	12.4	4.0	5.6	10.5	6.0
Business and Commerce	32.5	32.1	30.7	34.7	40.0	27.2	27.7	20.7
Education	1.0	1.6	2.2	4.7	1.7	2.3	1.5	6.4
Social Sciences and Applied Humanities	8.8	10.9	5.9	7.6	17.1	18.1	19.5	23.3
Humanities	9.3	8.5	5.7	10.8	6.6	17.7	6.4	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's own table, derived from Cosser with du Toit (2002); Department of Education (2002a, 2002b)

are significantly higher than coloured preference for study in this area (from 8.5 per cent to 17.7 per cent); for the other three groups the preference-enrolment differential is not marked.

At the level of fields of study⁶ the transition from Grade 12 preference to first-year enrolment was as shown in Table 4.

Table 4 reveals that higher percentages of students of all race groups enrolled in the Humanities than had planned to do so – especially Indian/Asian and white learners; lower percentages of students of all race groups except black Africans enrolled in Business and Commerce than had planned to do so; and lower percentages of students of all race groups enrolled in SET programmes than had planned to – except that for white learners the differential is much smaller than for the other groups. These shifts confirm a broad shift from preference for study in Business and Commerce and in SET to enrolment in the Humanities.

The 2005–06 Transition Study

Aspiration versus Enrolment

The percentage of learners in the 2005 aspiration survey who intended entering HE (whether in 2006 or at some future date) was 53.8. This compares with a figure of 84 per cent in the 2001 aspiration survey.

The difference in response between 2001 and 2005 may be due in part to learners having indicated, in the 2001 survey, that they planned to proceed to higher education when in fact they may have planned to proceed to another type of further learning (for example, an FET college)⁷ and to a fall-off in response about aspiration to proceed to HE as a result of the question-filtering process in the 2005 questionnaire. But so large a change would suggest that other factors must have contributed to the discrepancy – factors not identified in the present study but certainly to be probed in future research.

A disaggregation by race of those who indicated that they planned to proceed to HE (whether in 2006 or later) reveals that 53.5 per cent of black Africans, 43.9 per cent of coloureds, 65.0 per cent of Indians/Asians and 59.1 per cent of whites wanted to do so. A comparison with the 2001 profile, where 85.4 per cent of black Africans, 69.5 per cent of coloureds, 91.7 per cent of Indians/Asians and 81.3 per cent of whites aspired to enter HE, shows that there has been a significant tapering off in interest in HE among all four race groups. The percentage change is indicated in Table 5.

Table 4: Grade 12 learner field-of-study preference in 2001 and first-year enrolment in 2002, by race

Field of study	2001 preference				2002 enrolment			
	African	Coloured	Indian	White	African	Coloured	Indian	White
Humanities	19.1	21.0	13.8	23.1	25.4	38.1	27.4	41.2
Business and Commerce	32.5	32.1	30.7	34.7	40.0	27.2	27.7	20.7
Science, Engineering and Technology (SET)	48.4	46.9	55.5	42.2	39.6	34.7	44.9	38.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author’s own table, derived from Cosser with du Toit (2002); Department of Education (2002a, 2002b)

Table 5: Percentage change in Grade 12 learner aspiration to enter HE, 2001 and 2005, by race

Survey	Black African	Coloured	Indian/Asian	White	Total
2001 aspiration survey	85.4	69.5	91.7	81.3	84.1
2005 aspiration survey	53.5	43.9	65.0	59.1	53.8
Percentage change between 2001 and 2005	-37.4	-36.8	-29.1	-27.3	-36.0

Source: Author's own table, derived from Cosser with du Toit (2002) and Cosser (2009)

As Table 5 reveals, in total there was a 36 per cent decline in aspiration to enter HE from 2001 to 2005. The greatest decline was among black Africans, the smallest among whites. The racial profile, in fact, follows the continuum stereotype discussed earlier, which places black African and white learners at opposite ends of a continuum of response.

An analysis of the Department of Education HEMIS database of enrolments for 2006 (Department of Education 2007) reveals that 63,149 of the 508,363 learners who sat for the Senior Certificate Examination in 2005 enrolled in a HE institution in 2006 – that is, 12.4 per cent of the cohort. This is 1.3 percentage points lower than the enrolment rate for 2002, and is in keeping with the lower aspiration to enter higher education discussed above.

A disaggregation by race reveals that the ratio of black African to coloured to Indian/Asian to white learners who entered HE institutions in 2006 straight from school was 58.4 per cent: 7.8 per cent: 7.0 per cent: 26.8 per cent. A comparison with the representation of these four race groups in the general population – where, in 2006, the ratio was 79.0 per cent: 9.0 per cent: 2.5 per cent: 9.5 per cent (Statistics South Africa 2009) and where, even more acutely, in the 15–24-year-old bracket the ratio was 83.0 per cent: 8.0 per cent: 2.3 per cent: 6.7 per cent – reveals that black African students were under-represented in the first-year intake, coloured students were marginally under-represented, while Indian/Asian and white students were over-represented. The differentials in the case of three of the race groups – black Africans, Indians/Asians and

whites – especially in the case of the 15–24-year-old age group statistics – are large. Racial equity, therefore, remains far from having been achieved in the first-year intake into HE in 2006 of learners who were in Grade 12 in 2005.

Table 6 compares Grade 12 learner aspirations to enter HE in 2005 with actual first-time entering student enrolments (students who were in Grade 12 the previous year) in 2006.

Table 6: Aspiration to enter HE in 2006, enrolments in 2006 of students who were in Grade 12 in 2005, and representation in the general population aged 15–24 in 2006, by race

Category	BA	C	I/A	W	Total
Aspiration to enter HE in 2006	80.6	5.8	5.4	8.2	100.0
Enrolment in HE in 2006	58.4	7.8	7.0	26.8	100.0
General population aged 15–24 in 2006	83.0	8.0	2.3	6.7	100.0

Source: Author's own table, derived from Cosser (2009); Department of Education (2007); Statistics South Africa (2009)

As Table 6 shows, there is a fairly strong correlation between the percentages of learners of three of the four race groups who aspired to enter HE in 2006 and the distribution of 15–24-year-olds within these race groups in the general population. The correlation for Indians/Asians is weak, more than double the percentage aspiring to enter HE in 2002 than are represented in the Indian/Asian population of 15–24-year-olds. While in the 2001–02 transition (see Table 1) higher percentages of all race groups aspired to enter HE than were represented in the 15–24-year-old population, here we see that slightly lower percentages of black African and coloured learners aspired to enter HE than were represented in the 15–24-year-old population, while slightly higher percentages of Indian/Asian and white learners aspired to enter HE than were represented in the 15–24-year-old population. A slippage has taken place, therefore, in black African and coloured learner aspiration for HE in relation to black African and coloured representation in the population of 15–24-year-olds. Thirteen years into South Africa's democracy, it is worrying that fewer black Africans and coloureds than are represented in the population want to proceed to HE.

As in the case of the 2001–02 transition, however, the enrolment profile is profoundly out of step with this correlation for all groups other than coloureds – for whom there is a perfect correlation between representation in the population of 15–24-year-olds and enrolment in HE. Thus, for example, only 58.4 per cent of enrolments in HE institutions in 2006 were black African, in relation to black Africans’ 83.2 per cent representation in the general population of 15–24-year-olds. And at the other end of the spectrum, 26.8 per cent of enrolments in HE institutions in 2006 were white, in relation to whites’ 6.7 per cent representation in the general population of 15–24-year-olds.

A comparison of Grade 12 learner preferences in 2005 for study in specified areas and their actual enrolment choices one year later (in 2006) is disaggregated by race group in Table 7.

As we see from the profile in Table 7, significantly higher percentages of students of all four race groups enrolled in the Humanities in 2006 than had aspired to do so in 2005;

significantly lower percentages of students of all four race groups enrolled in the Health Sciences than had aspired to do so; Education enrolments outstripped aspirations for all groups bar whites; higher percentages of students of all four race groups enrolled in Business/Commerce than had intended to do so; lower percentages of students of all four groups enrolled in Engineering and Other Applied Sciences in 2006 than had aspired to do so in 2005 – though the percentage difference for whites is negligible; lower percentages of black African and coloured students than of Indian/Asian and white students enrolled in the Natural and Mathematical Sciences than had aspired to do so; and higher percentages of black African and white students than of coloured students enrolled in the Social Sciences than had aspired to do so, Indian/Asian enrolment in this programme area matching aspiration.

At the level of fields of study, the transition from Grade 12 preference to first-year enrolment (2005–06 transition) is indicated in Table 8.

Table 7: Grade 12 study preference in 2005 and first-year programme enrolment in 2006, by race

Programme area	2005 preference				2006 enrolment			
	African	Coloured	Indian	White	African	Coloured	Indian	White
Natural and Mathematical Sciences	21.6	14.7	10.9	13.7	14.7	11.1	15.3	15.8
Engineering and Other Applied Sciences	24.1	14.7	20.0	13.7	16.7	9.7	16.7	13.5
Health Sciences	10.9	12.0	16.1	13.9	5.6	7.4	8.7	6.4
Business and Commerce	24.2	23.6	27.1	19.4	33.2	29.5	29.4	23.9
Education	2.2	4.1	2.7	6.5	4.2	8.9	3.4	4.7
Social Sciences and Applied Humanities	13.0	20.2	18.6	17.6	18.6	17.7	18.7	21.5
Humanities	4.0	10.7	4.6	9.2	7.0	15.7	7.8	14.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's own table, derived from Cosser (2009); Department of Education (2007)

Table 8: Grade 12 learner field-of-study preference in 2005 and first-year enrolment in 2006, by race

Field of study	2005 preference				2006 enrolment			
	African	Coloured	Indian	White	African	Coloured	Indian	White
Humanities	19.2	35.0	25.9	33.3	29.8	42.3	29.9	40.4
Business and Commerce	24.2	23.6	27.1	19.4	33.2	29.5	29.4	23.9
SET	56.6	41.4	47.0	47.3	37.0	28.2	40.7	25.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's own table, derived from Cosser (2009); Department of Education (2007)

Table 8 reveals that higher percentages of students of all race groups enrolled in the Humanities than had planned to do so – especially black African and white learners, that higher percentages of all groups enrolled in Business/Commerce than had planned to do so, and that significantly lower percentages of all groups enrolled in the field of SET than had aspired to do so.

These mismatches indicate a broad shift from preference for study in SET to enrolment in Business/Commerce and the Humanities – a profile that differs significantly from that seen four years earlier (the 2001–02 transition), where the preference was for study in both SET *and* in Business/Commerce. While Business/Commerce may appear from its preference profile to have lost some of its allure, then, the enrolment profile suggests that its star remains in the ascendancy.

Discussion

What emerges clearly from the above presentation of selected findings of the two surveys and of the analysis of HEMIS data is the extent to which HE enrolment rates are out of step both with learner aspirations for HE and with the representation of the four race groups of university-going age in the general population.

From an aspiration perspective, the 2005 profile reveals that there has been a major decline in aspiration to proceed to HE not only at the aggregate level (from 84.1 per cent in 2001 to 53.8 per cent in 2005) but at the race-disaggregated level – from 85.4 per cent for black Africans in 2001 to 53.5 per cent for the same group in 2005, and from 81.3 per cent for whites in 2001 to 59.1 per cent for the same group in 2005. What the shift also indicates is that there has been a reversal in aspiration to enter HE from 2001 to 2005: in 2001, a higher percentage of black African than of white learners (85.4 per cent: 81.3 per cent) wanted to enter HE; but in 2005, a higher percentage of white than of black African learners (59.1 per cent: 53.5 per cent) wanted to enter HE. What factors can have contributed to this reversal?

Three possible hypotheses can be advanced for this shift. The first is that a greater pragmatism may have set in among black African learners regarding the reach of their expectations for further study – inadequate Grade 12 symbols for HE study proving to be a disincentive to admission to HE institutions. While there have certainly been improvements in the overall Senior Certificate pass rate annually for some years, black African learners continue to perform more poorly than their white counterparts, as evinced by the far larger number of formerly black African schools than formerly white ('Model C' schools) with matric pass rates in the bottom two quartiles (Department of Education 2000, 2004). There is a positive correlation, at the other end of the spectrum, between

intention to enter HE and the average Grade 11 symbols of learners. A regression analysis of the 2001 survey data revealed that the odds of learners with an A-average Grade 11 symbol indicating that they intended entering rather than not entering HE were 8.6 times higher than the odds of learners with an F–G symbol indicating that they intended entering rather than not entering HE. The odds of learners with a B-average Grade 11 symbol indicating that they intended entering rather than not entering HE were 4.5 times higher than the odds of learners with an F–G symbol indicating that that intended doing so; and so forth (Cosser with du Toit 2002).

The second is that the reinvented role of FET colleges in addressing the intermediate-level skills needs of the country, boosted by state recapitalization of the FET sector, together with a fairly aggressive marketing campaign that has repositioned the sector in the public eye may have deflected some interest away from HE study.

And the third is that funding for HE, despite the annual increases in disbursements by the state-funded loan-cum-bursary scheme (the National Student Financial Aid Scheme, or NSFAS) for academically capable students unable to afford university fees, continues to prove a major disincentive to black African students entering HE. The 2001 survey revealed that external sources of funding for HE study (NSFAS, bank loans, bursaries and scholarships) were more important for black Africans than for coloureds than for Indians/Asians than for whites (the mean values can be plotted on a continuum) – the corollary being that *internal* sources of funding (such as parental finance) are *less* important influences upon black Africans than upon coloureds than upon Indians/Asians than upon whites – in inverse proportion to reliance on external funding sources (for further discussion, see Cosser with du Toit 2002). The 2005 survey confirms that the perception of the availability of financial assistance for study is highest among black African learners on a five-point Likert scale (3.6), and is not even significant for Indian/Asian and white learners (2.9 and 2.4 respectively – below the mid-point) (Cosser 2009).

The influence of these factors on learner aspiration for HE, however, as the use of the subjunctive mood in the above paragraphs indicates, would need to be subjected to scrutiny through further research.

Notwithstanding the decline in learner interest in proceeding to HE, such aspiration remains high. While comparisons between South Africa and the US may be spurious, given that blacks constitute a minority in the US and that the race group dynamics in the two countries may differ, it is nonetheless interesting to observe that, broadly speaking, the finding that learners of all race groups aspire to HE bears out comparative longitudinal research conducted by Schneider and Stevenson (1999), which reveals that the rise in educational expectations in

the United States over the last 40 years (as measured by the percentages of learners expecting to obtain a first degree – rising from 30 per cent of learners in 1955 to 70 per cent in 1992) is not confined to any particular group of students. Similarly, research conducted by Hossler, Braxton and Coopersmith (1989) and by Paulsen (1990) reported that ethnicity has little or no effect on the educational aspirations of learners. However, as the South African profile demonstrates, the percentage of *coloureds* intending to enter HE within three years of the survey date is significantly lower than the percentages for each of the other three race groups, while the percentage of Indian/Asians wanting to proceed to HE is notably higher than that for black Africans and whites.

From an enrolment perspective, the 2002 and 2006 profiles show a reversal of white and black African enrolments in HE institutions – black African enrolments (relative to those of the other three groups) having increased from 53.2 per cent in 2002 to 58.4 per cent in 2006, white enrolments having decreased from 30.5 per cent in 2002 to 26.8 per cent in 2006 in relation to the enrolments of the other groups. And since the enrolments of coloured and Indian/Asian learners have remained fairly constant (shifting from 7.7 per cent to 7.8 per cent for coloureds, and from 8.6 per cent to 7.0 per cent for Indians/Asians), we can assume that the shift has largely been between black African and white enrolments. The five percentage point increase in black African enrolments, moreover, far outstrips the 1.0 percentage point growth in the proportion of black Africans in the general population aged 15 to 24 over this period (black Africans in this age category made up 82.0 per cent of the population in 2002, 83.0 per cent in 2006, while the proportion of whites in this age category over the same period dropped marginally – from 7.4 per cent in 2006 to 6.7 per cent in 2006).

While the aspiration profile is disappointing from a black African perspective, then, the enrolment profile from the same perspective is encouraging. That the percentage change in black African enrolments between 2002 and 2006 is so slow, however – on average, about one percentage point per year – underscores the extent to which discrimination persists in the learning pathway from school to HE.

Such discrimination is the product of historical legacy. But it is due also to the stunting of the growth of cultural capital (Bourdieu and Passeron 1973) – initially quite deliberately through the implementation of *apartheid*, consequently through black Africans having to ‘play catch-up’ in the manner in which latecomer economies in developing countries the world over have had to do (for a compelling analysis of the catch-up dynamic between ‘early leaders’ and ‘latecomers’ – which serves as a useful correlative for failure in the fulfilment of black African aspiration – see Abramovitz 1986). Cultural capital acts as a social relation within a system of exchange that includes the accumulated cultural knowledge

that confers power and status (Harker 1990). Two of the three sub-types of Bourdieu's cultural capital (Bourdieu 1986: 47) are *embodied* and *institutionalized* capital. The former represents the ways in which time, culture and traditions bestow elements of the embodied state upon another, usually by the family through socialization. The latter represents institutional recognition of the cultural capital held by an individual, usually academic credentials. The notions of embodied and institutionalized capital explain in large measure the perpetuation of lingering discrimination in the achievements and learning pathways of white and black South Africans.

The stunted growth of cultural capital among black South Africans is a function also of depressed socio-economic status (SES). An examination of the SES of respondents to the 2001 and 2005 aspiration surveys points up the low base from which black Africans as a group in South Africa must perforce operate. From a calculation of SES based on the education and income levels of learners' parents/guardians (see Cosser with du Toit 2002 and Cosser 2009) we see that 84.5 per cent of black Africans fell into the low SES bracket in 2001, compared with 23.1 per cent of whites, and that, four years later, 76.3 per cent of black Africans fell into the low SES bracket, compared with 10.3 per cent of whites. The percentage changes for black Africans and whites in the low SES category differ markedly: – 9.7 per cent for black Africans; – 55.4 per cent for whites. In other words, the lot of poor white people has improved far more than that of poor black African people over a four-year period.

This finding, together with the broader finding that SES–race cross-tabulations four years apart (Cosser with du Toit 2002 and Cosser 2009) point up the extent of the correlation between low SES and colour in South Africa, underscores the extent to which SES is likely to be a strong contributory variable in the decline in HE aspiration and in the moderate growth in black African enrolments over the four-year period in question. Again, however, further – multivariate – analysis that factors out the effects of other variables is needed to quantify the precise effect of SES on aspiration and enrolment.

SES is a component of the class stratification that the Council on Higher Education (CHE) is keen to have HE address. In one of its early publications, the Council claims that 'the extent to which equity and access are actively promoted or frustrated will determine the nature and extent of social and class stratification and have a direct bearing on the nature of South Africa's democracy, labour market and social stability' (Council on Higher Education 2000: 27). The effect, however, is two-way: without a fairly dramatic growth in the proportions of the population in the middle and high SES brackets, access to HE for black Africans will continue to be restricted and indirect discrimination perpetuated.

Conclusion

This conclusion will not recapitulate the arguments made in this paper. Rather it will chart a way forward for further research that foregrounds the need to isolate discrimination as a key variable in pathway studies.

The methodological corollary to the statement in the penultimate paragraph of the last section – that further analysis that factors out the effects of other variables is needed to quantify the precise effect of SES on aspiration and enrolment – is that there is no one approach for measuring racial discrimination, no single angle from which to approach the issue. This paper has looked at two transitional moments in time involving identical cohort types (Grade 12 learners) within one domain (the school). To ascertain the nature and extent of discrimination in learning pathways, however, researchers need not only to validate findings at regular intervals (over a sustained period involving more than two investigations) to establish reliability and trends but to track the same cohorts of learners over a considerable period of time. In short, both longitudinal and panel studies are needed.

Partly towards this end, the 2001 and 2005 aspiration surveys discussed in this paper have each been followed by a tracer study – one in 2002 and the other in 2006. The HSRC plans to track the 2005 cohort beyond 2006, moreover, to ascertain learners' destinations in 2007 and 2008. What these incipient panel studies have allowed the research team to do is to study, albeit in a limited way, the variables that have impacted on learner aspiration and decision-making. Early signs are that there is a high degree of reliability in the variables that affected the aspirations and enrolment decisions of learners in the four surveys – a reliability that will need to be verified through further research.

In addition to sustained investigation of learner pathways, moreover, the systemic effects upon learners of possible discrimination in their learning and career environments need to be examined. This will involve, among other things, investigation of HE institutional access policies and practices in the context of broader HE policy and practice at the macro level.

The National Plan for Higher Education (Department of Education 2001) highlights four key equity issues that require monitoring: differential representivity across individual HE institutions; the participation rate of black Africans in HE; the uneven distribution of enrolments across different programme areas; and wide disparities in the graduation rates of black African and white students. To this can be added a fifth: the rate at which black African students in particular, and learners of colour in general, access HE the year after school.

Notes

- 1 The sampling procedure and the methodology deployed are described in detail in the published report on the project (Cosser with du Toit 2002). Of the 14,064 questionnaires taken into the field (48 per each of 293 schools), 12,204 were returned completed – a response rate of 86.8 per cent.
- 2 HEMIS is the official Department of Education system for the annual collection of data on enrolments and graduations from all HE institutions in South Africa.
- 3 Because the ages of students entering HE in South Africa vary – white students for the most part (despite a small proportion taking ‘gap years’ prior to registration) entering HE earlier than their black African counterparts, many of whom enter employment first in order to support their families and to save sufficient money for HE registration fees – the age categories 15–19 and 20–24 are combined in this and subsequent analyses.
- 4 In this and all other tables, figures are percentages unless otherwise indicated.
- 5 Learners not sure of their institutional preferences, learner preferences for and student enrolments in private institutions and institutions abroad, and UNISA preferences and enrolments have been factored out of this analysis (UNISA not having provided enrolment figures in 2002).
- 6 Fields of study are broad categories aggregated from study programmes
- 7 Some of the difference may be attributable to the different ways in which the question regarding aspiration for HE study was asked in the two surveys. In the 2001 survey, learners were asked: ‘Are you planning to study at a university or technikon within the next three years?’ There was no lead-up question probing whether they planned to study further or not; nor was further study disaggregated into various options (HE, further education, etc.). In the 2005 survey, however, learners were asked ‘Are you planning to study further after Grade 12?’, and subsequently, ‘At which institution type are you planning to study?’ – the listed options being ‘A higher education institution’, ‘A further education and training (FET) college’, ‘A private FET institution’, ‘An agricultural college’, and ‘A nursing college’. A total of 59.8 per cent of learners wanted to study at a HE institution rather than at one of the other institutional types.

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