

SECOND CARNEGIE INQUIRY INTO POVERTY
AND DEVELOPMENT IN SOUTHERN AFRICA

The development and underdevelop-
ment of education in South Africa

by

P N Pillay

Carnegie Conference Paper No. 95

Cape Town

13 - 19 April 1984

ISBN 0 7992 0705 5

CONTENTS

	<u>Page</u>
1	<u>INTRODUCTION</u> 1
2	<u>CONTROL OF EDUCATION AND STATE EXPENDITURE</u> 1
3	<u>SCHOOL ENROLMENT PATTERNS</u> 3
3.1	School Enrolment Ratios 3
3.2	Secondary School Enrolment Ratios 6
3.3	Pupil Progress 7
4	<u>TEACHERS</u> 13
4.1	Teacher-Pupil Ratios 14
4.2	Teacher Qualifications 16
5	<u>OUTPUT OF THE SCHOOLS-MATRICULANTS</u> 19
6	<u>TERTIARY EDUCATION</u> 20
6.1	University Enrolment 20
6.2	University Degrees 22
6.3	Advanced Technical Education 22
7	<u>LITERACY AND ADULT EDUCATION LEVELS</u> 26
7.1	Literacy 26
7.2	Adult Education Levels 27
8	<u>EDUCATION AND EMPLOYMENT</u> 28
9	<u>CONCLUSION</u> 30
10	<u>FOOTNOTES</u> 32
	<u>APPENDIX A:</u> Derivation of Adjusted School Enrolment Ratios (ASERs) 33
	<u>APPENDIX B:</u> Derivation of High School Enrolment Ratios (HSERs) and Secondary School Enrolments as a Percentage of Total School Enrolment 36
	<u>REFERENCES</u> 37
<u>FIGURES</u>	
1	Percentage of Pupils by Race who Reached Standard 10 from Standard 1 11
2	Percentage of Pupils by Race who Reached Standard 10 from Standard 6 12
3	Percentage Distribution by Race of Students at University: 1970 and 1980 23
4	Percentage Distribution by Race of University Degrees: 1970, 1975, 1980 24

TABLES

	<u>Page</u>
1 State Per Capita Expenditure on School Pupils by Race (rand per annum; Expenditure on Blacks Expressed as a percentage of Expenditure on Whites)	2
2 Adjusted School Enrolment Ratios (ASERs) By Race: 1920-1980	4
3 ASERs for South Africa and some Developed and Developing Countries (1980)	5
4 Secondary School Enrolments as a Percentage of the 15-19 Age Group (HSER) and of Total School Enrolment: 1960, 1970 and 1980	6
5 HSERs for South Africa and some Developed and Developing Countries (1980)	8
6 Pupil Progress by Race: Standard One to Standard Ten	9
7 Pupil Progress by Race: Standard Six to Standard Ten	9
8 Estimated Outflow of African Pupils at Different Levels of Education: 1981 and 1982	13
9 Teacher-Pupil Ratio by Race: 1960, 1970, 1975, 1978, 1980 and 1982	14
10 African Teacher-Pupil Ratio in 'White South Africa' and the Homelands	15
11 African Teacher-Pupil Ratios in South Africa and Teacher-Pupil Ratios in some Third World Countries	16
12 Qualifications of African, Coloured and Indian Teachers and Teachers in KwaZulu	18
13 Matriculation Passes by Race	19
14 Pupils who Passed Matriculation with Exemption by Race: 1970, 1975, 1978, 1980	20
15 University Enrolment by Race: 1970, 1975, 1980, 1982	21
16 University Students as a Percentage of the Population: 1970 and 1980	21
17 University Degrees Awarded in 1970, 1975 and 1980	22
18 Technikon Enrolment (Post-Matric) by Race: 1981 and 1982	25
19 Number of Diplomas and Certificates Awarded by Technikons: Whites and Africans (1978 and 1979) and Indians (1980)	25
20 Percentage and Number of Adult Population Illiterate - by Race, 1980	26
21 Adult Education Level by Race (Highest Qualification Obtained)	27
22 Racial Composition of the Population in 1970 and 1980	27
23 The Occupational Distribution of Blacks and Whites in 1981	29
24 Race Composition of South Africa's High Level and Total Manpower in 1979	29
25 Percentage Distribution of Whites and Blacks in some Key Occupations: 1981	30

1. INTRODUCTION

The salient feature of education in South Africa is the differential pattern of educational development of the different race groups. On the one hand, Whites receive a very high level of education which is comparable with the best in the industrialised world. On the other hand, Black education is characterised largely by an inequitable allocation of resources, overcrowded classrooms, high drop-out rates, insufficient and poorly qualified teachers and is generally considered by Blacks to be inferior and designed to confine them to lower class occupations. There are differences even within Black education with African education showing the greatest degree of underdevelopment.

This paper documents the various aspects of inequality in education. The discriminatory patterns in education can be discerned through an examination of the data relating to, inter alia, state expenditure on education, enrolments at schools and universities, teacher-pupil ratios, teacher qualifications, drop-out rates and the output of the education system in terms of matriculants and graduates.

Literacy and adult education are also looked at as is the relationship between education and employment.

In this paper the term 'Black' refers collectively to all those South Africans classified as Africans, Coloureds and Indians. The term 'White' refers to all those classified as White.

South Africa is considered as a single geographic entity. The 'independent homelands' are thus regarded as an integral part of South Africa; statistics for these regions, where available, are included in the national figures.

2. CONTROL OF EDUCATION AND STATE EXPENDITURE

Control of education is fragmented under 17 departments of education: 11 for Africans (one in each of the 10 homelands and the Department of Education and Training for Africans in the 'White' or 'Common area'),

4 for Whites and 1 each for Coloured and Indians. Education for Whites is controlled by the 4 provinces with the exception of advanced technical and university education which falls under the Department of National Education. Coloured and Indian education are controlled by departments attached to the Ministry of Internal Affairs.

The pattern of state expenditure has reflected the huge inequalities between Black and White education. Table 1 shows the per capita expenditure on school pupils for various years in the 'seventies and expenditure on Black education as a percentage of White education.

Table 1: State Per Capita Expenditure on School Pupils by Race
(rand per annum; Expenditure on Blacks Expressed as
a Percentage of Expenditure on Whites)

YEAR	AFRICANS		COLOUREDS		INDIANS		WHITES
	Per Capita Expenditure (P.C.E.)	% of White P.C.E.	P.C.E.	% of White P.C.E.	P.C.E.	% of White P.C.E.	P.C.E.
1971-1972	25,31	5,5	94,41	20,5	124,40	27,0	461,00*
1974-5	39,53	6,5	125,53	20,7	170,94	28,3	605,00
1975-6	41,80	6,5	139,62	21,7	189,53	29,4	644,00
1976-7	48,55	7,5	157,59	24,5	219,96	34,2	654,00
1978-9	71,28	9,8	225,54	31,2	357,15	49,3	724,00
1979-80	91,29	7,8	234,00	20,0	389,66	33,3	1 169,00

Sources: S. Blignaut - Statistics on Education in South Africa, 1968-79; Annual Survey of Race Relations, 1980, 1981.

* Estimate. Figures for African pupils in the 'Common Area' only, i.e. excluding the homelands.

The figures in Table 1 clearly illustrate the large discrepancy in per capita expenditure between Black and White education.

African per capita expenditure as a percentage of White expenditure especially, appallingly low and actually decreased in 1979-80.

The Research Unit for Education System Planning at the University of the Orange Free State has computed African per capita expenditure figures for the whole of South Africa.¹ These are:

1977-8	R52,86
1978-9	62,37
1979-80	71,03
1980-81	87,27
1981-2	111,36
1982-3	125,93

The 1979-80 and 1980-1 figures are 9,8 per cent and 7,5 per cent respectively of the per capita expenditure on White education.

3. SCHOOL ENROLMENT PATTERNS²

School enrolment patterns are particularly useful indicators of the level of educational development in a society. This section examines school enrolment ratios, both for the primary and secondary levels together and then for the secondary levels together and then for the secondary phase only, to determine what percentage of the population of school-going age is actually at school. Pupil progress through school is also traced to illustrate the high drop-out rate among Black pupils.

3.1 SCHOOL ENROLMENT RATIOS

Use is made here of the Adjusted School Enrolment Ratio (ASER) which gives the ratio of pupils in school to the number of pupils of school-going age. Auerbach has shown that the proportion of individuals of school-going age should be taken as eighty per cent (12/15) of those persons in the 5 - 19 age group.

Table 2 shows the ASERs for the four races and the whole population between 1920 and 1980.

TABLE 2 : Adjusted School Enrolment Ratios (ASERs) BY RACE : 1920-1980

YEAR	WHITE	INDIAN	COLOURED	AFRICAN	TOTAL POPULATION
1920	78,4	14,9	29,7	13,8	28,7
1930	80,5	27,9	40,0	18,0	32,0
1940	82,0	37,2	60,2	24,7	38,2
1950	85,8	49,1	67,9	32,9	45,8
1960	94,9	82,6	69,2	45,0	55,4
1970	95,7	84,0	74,6	54,2	66,7
1980	96,3	94,8	93,0	83,1	86,1

Note: For derivation of the ASERs see Appendix A.

In 1980 96,3 per cent of Whites of school-going age were at school. Starting from rather low ASERs in 1920 the Indian and Coloured population have both reached high levels by 1980. The African ASER has also shown a dramatic increase especially in the 1970s, to reach 83,1 per cent in 1980. These ratios would indicate then, that a very large percentage of persons of school-going age is at school. One of the reasons for this is compulsory attendance at school up to age 15 required of Whites, Coloureds and Indians and four years of schooling for Africans.

Comparing the ASER for South Africa as a whole and for the different races with a range of developing and developed countries (Table 3) reveals:

- (i) that all the South African figures compare favourably with the ASERs of many of the developing countries shown in Table 3;
- (ii) The Coloured, Indian and White ASERs are very close to or equal to those in industrialised countries.

To discern the underdevelopment of Black education it is necessary, however, to examine the secondary or high school enrolment ratios (HSERs).

TABLE 3 : ASERs For South Africa and some Developed and Developing Countries (1980)

COUNTRY	ASER
South Africa - Total Population	86
- Africans	83
- Coloureds	93
- Indians	95
- Whites	96
Algeria	65
Botswana	73
Egypt	64
Zimbabwe (1981)	71
Canada	94
Cuba (1979)	92
Argentina (1979)	90
Chile	96
Peru (1979)	88
Hong Kong	81
Israel (1979)	89
Japan	96
South Korea (1981)	96
Singapore	80
France	96
Greece (1978)	92
Spain (1979)	96
United Kingdom (1979)	92
Yugoslavia	88
Australia	99

Source: UNESCO Statistical Yearbook, 1982, for all countries except South Africa.

3.2 SECONDARY SCHOOL ENROLMENT RATIOS

Many educationists have stressed the importance of secondary education in the development of a society. Auerbach, for example, quotes Malherbe as saying '... the proportion of the population receiving post-primary education is the best single index of educational progress in a developing country'.³

High School Enrolment Ratios (HSERs) give the ratio of pupils in secondary school to the population of 'secondary school-going age'. Auerbach has taken the age-group 15-19 as the range nearest to a correct single secondary school age-range for purposes of comparison over several decades.

Table 4 shows the HSERs for 1960, 1970 and 1980 for the four races as well as for the whole population. The secondary school enrolment is also given as a percentage of total school enrolment.

TABLE 4 : Secondary School Enrolments as a Percentage of the 15-19 Age Group (HSER) and of Total School Enrolment:1960, 1970 and 1980

YEAR	RACE	PERCENTAGE OF ROLL AT HIGH SCHOOL	HSER
1960	Total Population(T)	11,3	19,8
	Whites (W)	31,7	79,6
	Africans (A)	2,5	3,6
	Coloureds (C)	9,3	19,9
	Indians (I)	12,9	29,5
1970	T	15,6	30,2
	W	36,4	90,9
	A	9,4	16,4
	C	11,5	27,1
	I	24,5	54,1
1980	T	20,8	44,5
	W	37,7	89,2
	A	15,9	35,0
	C	18,9	44,4
	I	31,7	80,2

Note: For derivation of the HSERs see Appendix B.

The HSEs are lower than the ASERs for both primary and secondary phases for all race groups but considerably more so in the case of Africans and Coloureds. The low HSEs in these latter groups are a reflection of the high drop-out rate at the secondary level when students often leave school to take up jobs to supplement the family income.

Comparing the HSER for South Africa as a whole and for the different races with the same range of countries as in Table 3 shows (in Table 5 - on the following page) that:

- (i) with the exception of Algeria, Botswana and Zimbabwe, all the countries have a higher HSER than the South African national, Coloured and African figures indicating the degree of under-development of Black education;
- (ii) only one country in Table 5, Japan, has a higher HSER than White South Africa.

3.3 PUPIL PROGRESS

This section traces the progress of pupils in school from the primary level to matriculation. Table 6 shows the percentage of pupils who reached Standard Ten from Standard One nine years earlier while Table 7 indicates the proportion of pupils who reach Standard Ten from Standard Six four years earlier. Some of these percentages are illustrated in Figures 1 and 2 respectively.

The alarming feature of Table 7 is the high drop-out rate of African and Coloured pupils, reflecting the great wastage of human potential. In 1978 the percentage of White pupils who reached Standard Ten from Standard One was about eighteen times greater than that of Africans, 6,5 times more than that of Coloureds and twice as many as that of Indians.

According to Professor De Lange of the Rand Afrikaans University, 46 per cent of Coloured and 58 per cent of African children drop out of school after four years.⁴

TABLE 5: HSERS For South Africa and some Developed and Developing

Countries (1980)

COUNTRY	HSER
South Africa - Total Population	45
- Africans	35
- Coloureds	44
- Indians	80
- Whites	89
Algeria	33
Botswana	22
Egypt	52
Zimbabwe (1981)	13
Canada	89
Cuba (1979)	71
Argentina (1979)	56
Chile	55
Peru (1979)	56
Hong Kong	62
Israel (1979)	71
Japan	91
South Korea (1981)	85
Singapore	55
France	85
Greece (1978)	81
Spain (1979)	87
United Kingdom (1979)	82
Yugoslavia	83
Australia	86

Source: UNESCO Statistical Yearbook, 1982, for all countries except South Africa.

TABLE 6 : Pupil Progress by Race : Standard One to Standard Ten

YEARS OF SCHOOLING	PERCENTAGE WHO REACHED STANDARD TEN			
	Whites	Indians	Coloureds	Africans
1967 (Std 1) to 1976 (Std 10)	59,9	21,5	5,9	3,2
1968 → 1977	66,8	25,5	9,1	3,7
1969 → 1978	69,0	34,4	10,5	3,9
1970 → 1979	68,4	48,5	11,4	n.a.
1971 → 1980	68,9	42,1	12,0	n.a.

Sources: Compiled from S.A. Statistics - 1980 and Annual Reports of Education Departments of Transkei and Bophuthatswana - various years.

TABLE 7 : Pupil Progress by Race : Standard Six to Standard Ten

YEARS OF SCHOOLING	PERCENTAGE WHO REACHED STANDARD TEN			
	Whites	Indians	Coloureds	Africans
1969 (Std 6) to 1973 (Std 10)	55,9	29,1	11,8	4,8
1970 → 1974	58,5	32,4	12,5	5,0
1971 → 1975	56,7	28,4	13,5	6,1
1972 → 1976	60,1	25,3	13,0	6,9
1973 → 1977	65,3	30,8	18,3	7,7
1974 → 1978	68,3	40,6	22,3	7,8
1975 → 1979	68,0	60,3	24,1	n.a.
1976 → 1980	69,5	53,1	24,8	n.a.

Sources: Compiled from S.A. Statistics - 1980 and Annual Reports of Education Departments of Bophuthatswana and Transkei - various years.

n.a. Not available.

The percentage of pupils who reach standard Ten after having got to standard Six is higher in all race groups than the standard One to standard Ten figures. With Whites the difference is only marginal but in the case of Coloureds and Indians a significant increase in the number of pupils who reached matriculation from standard Six has occurred. The Coloured figures was still, however only 35 per cent of the White one in 1980. The number of Africans reaching matriculation from standard Six is increasing but is still very low. In 1978 the percentage of Whites who reached standard Ten from standard Six in 1974 was almost nine times greater than that for Africans.

The Financial Mail has produced similar statistics on the high drop-out rate of African pupils.⁵ Only 60,9 per cent of a sub-A group of 1972 reached standard Two by 1975. In other words, two out of five pupils had not reached the fourth year of education and 'in practice would regress to almost complete illiteracy'. In the same year the standard Five group was 35,4 per cent of the sub-A group of 1969. This means that nearly two-thirds of the pupils had not reached the seventh year of education which is generally regarded as the minimum base for further training.

Furthermore, the 1975 standard Ten group represented only 1,96 per cent of the sub-A group of 1963. By 1981 36 out of 100 sub-A African pupils in 'white areas' reached secondary school and nine out of one hundred made it to matriculation. In 1983, however, it was estimated that only 1,5 per cent of pupils in schools controlled by the Department of Education and Training reached matriculation.⁶

The University of Orange Free State publication referred to in Section 2 has estimated the outflow of African pupils at different levels of education. Table 8 shows that the number of pupils dropping out at the lower levels is, in absolute terms, large and increasing.

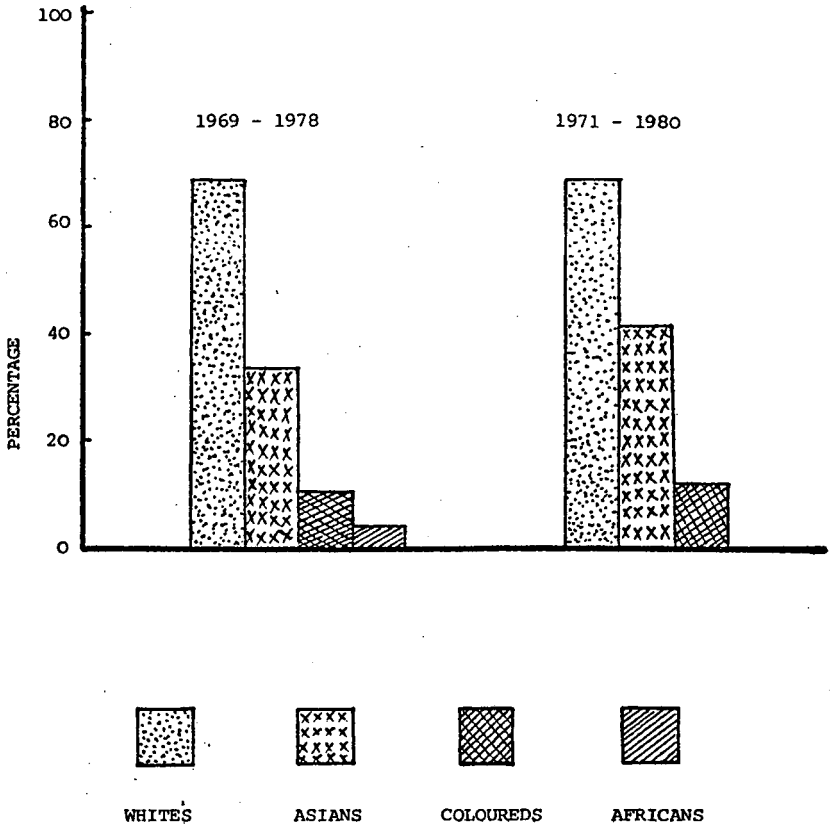


FIGURE 1

PERCENTAGE OF PUPILS BY RACE
WHO REACHED STANDARD TEN FROM
STANDARD ONE:

1969 - 1978 AND 1971 - 1980

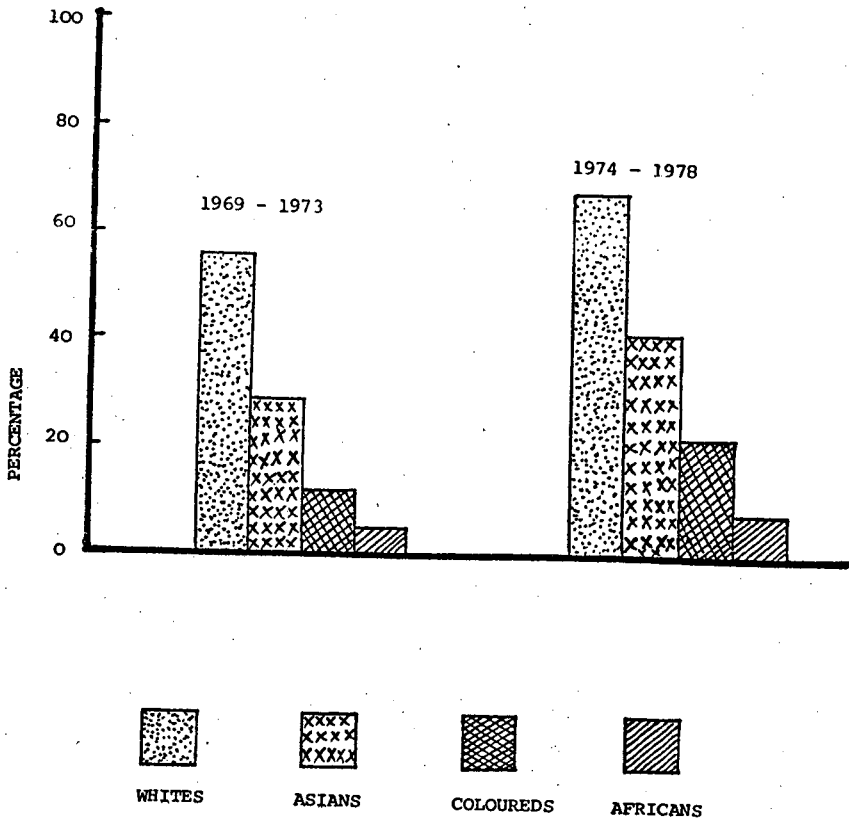


FIGURE 2

PERCENTAGE OF PUPILS BY RACE
WHO REACHED STANDARD TEN FROM
STANDARD SIX: 1969 - 1973
AND 1974 - 1978

TABLE 8 : Estimated Outflow of African Pupils at Different Levels of Education : 1981 and 1982

	1981	1982
(1) Illiterate (School Leavers without Sub-Standard A)	175 764 (28,2%)	156 558 (23,75%)
(2) Semi-Literate (Obtained Sub-Standard A - Std 2)	160 551 (25,8%)	192 380 (29,18%)
(3) Literate (Obtained Std 3 - 5)	125 102 (20,1%)	130 272 (19,76%)
(4) Junior Secondary Std 6 - 8)	108 432 (17,5%)	116 378 (17,65%)
(5) Senior Secondary Std 9 - 10)	52 415 (8,4%)	63 659 (9,66%)

Source: Education and Manpower Production (Blacks), Nos. 2 and 3, 1981 and 1982, Research Unit for Education System Planning, University of the Orange Free State.

4 TEACHERS

It is a truism to state that an educational system is only as good as the teachers it employs. The recent Human Sciences Research Council (De Lange Commission) investigation of education has correctly stated that 'without a corps of well-trained and talented teachers any endeavour aimed at a system of education by means of which the potential of the country's inhabitants is to be realised, economic growth promoted, the quality of life of the inhabitants improved and education of equal quality provided for everyone, cannot be successful'.⁷

In South Africa there is both a quantity and quality deficiency of teachers. This is especially true of the African population where a high teacher-pupil ratio is combined with a serious quality deficiency in the majority of teachers. The pattern is a vicious circle of poorly qualified teachers, producing poorly qualified pupils who go on to become poorly qualified teachers.

4.1 TEACHER-PUPIL RATIOS

The teacher-pupil ratios for the four racial groups and the total population is given in Table 9 for 1960, 1970, 1975, 1978, 1980 and 1982.

TABLE 9 : Teacher-Pupil Ratio by Race : 1960, 1970, 1975, 1978, 1980 and 1982

Year	Africans	Whites	Coloureds	Indians	Total
1960	1:57	1:23	n.a.	n.a.	-
1970	1:65	1:20	1:31	1:27	1:40
1975	1:54	1:20	1:28	1:27	1:38
1978	1:51	1:19	1:28	1:27	1:37
1980	1:47*	1:19	1:29	1:25	-
1982	1:39*	1:18	1:27	1:24	-

Sources: S.A. Statistics - 1980 and 1982; S. Blignaut - Statistics on Education in South Africa, 1968-1979; Annual Reports of Departments of Education of Transkei and Bophuthatswana - 1978.

- * 1980 African figures exclude Bophuthatswana, Transkei and Venda.
- * 1982 African figures exclude these regions and Ciskei.

Note: The teacher-pupil ratios assume that teachers and pupils are of the same race. This is not quite true for African and Coloured education where there is a small proportion of teachers of other races.

The teacher-pupil ratio for Africans improved from 1:57 in 1960 to 1:51 in 1978 (an improvement of twelve per cent), but was till 2,7 times higher than that for Whites. The White teacher-pupil ratio was about half the national average in 1978.

The need for teachers is clearly most urgent in African schools. Table 10 shows that the shortage is most serious in primary schools, in the 'non-independent' homelands and of the 'independent homelands', Bophuthatswana.

TABLE 10 : African Teacher-Pupil Ratio in 'White South Africa'
and the Homelands

AREA	TEACHER-PUPIL RATIO		
	Primary and Secondary	Primary	Secondary
1. 'White South Africa' (1980)	1:45	1:47	1:35
2. Homelands (excluding Transkei, Bophuthatswana and Venda (1980)	1:50	1:54	1:37
3. Transkei (1982)	1:40	1:46	1:26
4. Bophuthatswana (1982)	1:48	1:50	1:42
5. Venda (1982)	-	1:39	1:27
6. Gazankulu (1979)	1:48	1:58	1:27
7. Lebowa (1979)	1:58	1:60	1:48
(1981)	-	1:52	1:37
8. KwaZulu (1982)	1:49	1:52	1:40
9. Kangwane (1979)	1:50	1:52	1:41

Sources: Department of Education and Training - Annual Report - 1981; Annual Reports of Departments of Education of Transkei, Lebowa, Bophuthatswana, Gazankulu, KwaZulu, Venda, Kangwane - various years.

In all areas the teacher-pupil ratio in primary schools is disproportionately high. Bophuthatswana, Lebowa and KwaZulu also have an exceptionally high teacher-pupil ratio at the secondary level. The general picture in African schools however, is one of a chronic shortage of teachers.

A frequent argument in defence of the status quo is that Africans in this country are better off than most people elsewhere on the continent as well as in many other third world countries. A comparison of African teacher-pupil ratios in South Africa with those in a number of developing countries shows that, in this respect, African pupils here are certainly worse off than their counterparts.

TABLE 11 : African Teacher-Pupil Ratios in South Africa and Teacher-Pupil Ratios in Some Third World Countries

COUNTRY		TEACHER-PUPIL RATIO	
		Primary	Secondary
South Africa	(1979)	1:52	1:36
South Africa	(1980)	1:51	1:36
Algeria	(1979)	1:36	1:25
Botswana	(1979)	1:32	1:17
Egypt	(1979)	1:32	1:23
Ghana	(1978)	1:27	1:19
Kenya	(1977)	1:33	1:25
Ivory Coast	(1979)	1:41	1:21
Swaziland	(1979)	1:35	1:19
Argentina	(1977)	1:18	1:8
Brazil	(1977)	1:23	1:15
Chile	(1979)	1:34	1:20
Mexico	(1979)	1:40	1:17
India	(1977)	1:41	1:21

Sources: UNESCO Statistical Yearbook - 1981; Department of Education and Training, Annual Report - 1981. South African figures exclude Transkei and Bophuthatswana (1979 and 1980) and Venda (1980).

Teacher-pupil ratios are much lower in all the countries compared with South Africa, confirming that the shortage of teachers in African schools in this country has reached crisis proportions.

4.2 TEACHER QUALIFICATIONS

Teacher-pupil ratios do not give any indication of the level of training reached by the teachers. The numerical shortage of African teachers is clearly serious but an even more critical problem is the poor qualifications of the majority of teachers.

The percentage of underqualified teachers (if the criterion used to describe a qualified teacher is possession of at least a matriculation and teaching diploma) has been given as:⁸

Whites	3,36 per cent
Indians	19,70 per cent
Coloureds	66,14 per cent
Africans	85,00 per cent*

(* 'Independent homelands' excluded)

Of the homelands, 95,8 per cent of primary school teachers in Gazankulu, for example, did not have sufficient qualifications in 1980. Ninety-two per cent of primary school teachers in the Transkei had a qualification lower than matriculation (1978). In Venda 60 per cent of all teachers had only a Standard Eight or lower qualification (1982), in Bophuthatswana this figure was 72,8 per cent (1981) and in Lebowa 73,6 per cent (1979). The qualifications of KwaZulu teachers are given in Table 12.

Table 12 also gives the qualification of African, Indian and Coloured teachers. All White teachers are matriculated and 97 per cent of them also have a professional teaching qualification. Of this latter group 34,3 per cent also had a university degree. Of the white teachers with no professional qualification 32,2 per cent had a university degree.

While all White and almost 83 per cent (61,0 + 21,8) of Indian professionally qualified teachers had a matriculation the corresponding figures for Africans, Coloured and teachers in KwaZulu were respectively 18,5 per cent, 45,6 per cent and 23,3 per cent. Only 8,9 per cent of Coloured teachers, 2,3 per cent of African and 3,0 per cent of KwaZulu's teachers had university degrees.

It is thus clear that South Africa is confronted with a teacher crisis in Black education both in terms of numbers and quality of teachers.

TABLE 12 : Qualifications of African, Coloured and Indian Teachers
and Teachers in KwaZulu

QUALIFICATION	AFRICANS *	COLOUREDS	INDIANS	KWAZULU
	(1980) %	(1982) %	(1982) %	(1982) %
A <u>PROFESSIONAL QUALIFICATION PLUS</u>				
1. Standard Six	11,4			14,9
2. Junior Certificate	52,2	46,8	7,2	38,8
3. Matric or Equivalent	15,0	37,5	61,0	18,6
4. Incomplete Degree	1,5			2,0
5. Degree	2,0	8,1	21,8	2,7
6. Technical or Special Teacher's Certificate	1,6	0,2		0,4
7. Sub-Total	83,7	92,6	90,0	77,4
B <u>NO PROFESSIONAL QUALIFICATIONS PLUS</u>				
8. Junior Certificate or Lower	12,4	3,0	2,2*	14,3
9. Technical Certificate	0,3	0,3	0,2*	0,3
10. Matric or Equivalent	3,1	3,3	6,6	7,6
11. Incomplete Degree	0,2			0,1
12. Degree	0,3	0,8	1,0	0,3
13. Sub-Total	16,3	7,4	10,0	22,6
14. TOTAL	100,0	100,0	100,0	100,0

Sources: South African Institute of Race Relations, Annual Surveys, 1981 and 1982; KwaZulu Department of Education and Culture, Annual Report, 1982.

* Excluding the 'Independent Homelands'.

5. OUTPUT OF THE SCHOOLS-MATRICULANTS

The number of matriculants emerging from the school system shows a highly skewed distribution in favour of Whites. Although the number of Black pupils passing matriculation has increased significantly during the last decade (Table 13) this figure is still disproportionately small in relation to the size of the population.

TABLE 13 : Matriculation Passes by Race (including exemptions and School leaving certificates)

YEAR	WHITES (%)	AFRICANS (%)	INDIANS (%)	COLOUREDS (%)	TOTAL (%)
1970	36 544(85,6)	2 820(6,6)	1 926(4,5)	1 406(3,3)	42 696(100,0)
1975	42 985(75,8)	6 761(11,9)	3 920(6,9)	3 048(5,4)	56 714(100,0)
1978	46 276(67,5)	12 045(17,6)	5 632(8,2)	4 623(6,7)	68 576(100,0)
1980	48 170(57,4)	23 999(28,6)	7 009(8,3)	4 819(5,7)	83 997(100,0)

Sources: South African Statistics, 1980 and 1982; Education and Manpower Production (Blacks), No. 3, 1982; Departments of Education of Transkei and Bophuthatswana - 1978.

The number of African pupils passing matriculation increased 8,5 times between 1970 and 1980, that of Indians 3,6 times, Coloureds 3,4 times and Whites 1,3 times. By 1980, however, the African figure had not yet reached 50 per cent of the White one.

While the increasing trend in the number of Black matriculants might seem impressive a more important statistic, I believe, is the number of students gaining a matriculation exemption as this provides access to university education and ultimately a professional occupation.

As Table 14 shows, the number of Black pupils who passed matriculation with exemption in 1978 (the latest year for which statistics are available for the whole country) was 7 931 constituting only 26 per cent of the total.

TABLE 14 : Pupils who Passed Matriculation with Exemption by Race :
1970, 1975, 1978, 1980

YEAR	WHITES (%)	AFRICANS (%)	INDIANS (%)	COLOUREDS (%)	TOTAL (%)
1970	14 412(88,0)	1 104(6,7)	410(2,5)	454(2,8)	16 380(100,0)
1975	20 850(76,9)	3 725(13,8)	1 189(4,4)	1 337(4,9)	27 101(100,0)
1978	22 288(73,8)	4 963(16,4)	1 805(6,0)	1 163(3,8)	30,219(100,0)
1980	25 523	n.a.	2 055	1 622	-

Sources: South African Statistics, 1980 and 1982; Education and Manpower Production (Blacks), No. 3, 1982; Departments of Education of Transkei and Bophuthatswana - 1978.

The percentage of African pupils with exemption actually decreased in areas excluding the 'independent homelands' between 1980 and 1982. In 1980 15,7 per cent of matriculation candidates passed with exemption. The corresponding figures for 1981 and 1982 were respectively 12,7 per cent and 10,4 per cent. In KwaZulu (1982) only 770 students (5,2%) out of 14 931 candidates gained a matriculation exemption; in Bophuthatswana 12 per cent; Venda 16 per cent; Transkei 8,0 per cent.

6. TERTIARY EDUCATION

The differential pattern of educational development is also reflected in university and technikon enrolments and the attainment of degrees and diplomas at these institutions.

6.1 UNIVERSITY ENROLMENT

The distribution of university students by race is given in Table 15 for various years since 1970. The percentage distribution for 1970 and 1980 is illustrated in Figure 3.

The greater majority of the students at university is White. Although the proportion of White students showed a steady decline since 1970, in 1982 Whites still formed over 72 per cent of the university student

TABLE 15 : University Enrolment by Race : 1970, 1975, 1980, 1982

YEAR	WHITES	AFRICANS	INDIANS	COLOUREDS	TOTAL
1970	73 001 (88,0%)	4 609 (5,6%)	3 474 (4,2%)	1 813 (2,2%)	82 897 (100,0%)
1975	96 923 (83,5%)	9 181 (7,9%)	6 186 (5,3%)	3 878 (3,3%)	116 168 (100,0%)
1980	114 119 (75,4%)	17 989 (11,9%)	11 496 (7,6%)	7 660 (5,1%)	151 344 (100,0%)
1982	115 181 (72,5%)	22836 (14,4%)	12 165 (7,7%)	8 654 (5,4%)	158 836 (100,0%)

Source: South African Statistics, 1980 and 1982.

population. The percentage of African students more than doubled in the period under consideration in Table 15 but it is clear that university education is only available to a minuscule proportion of the African population. The number of Indian students showed a consistent increase but the proportion of Coloured students in relation to population size remains at a rather low level. (Table 16).

TABLE 16 : University Students as a Percentage of the Population :
1970 and 1980

YEAR	WHITES	INDIANS	COLOUREDS	AFRICANS
1970	1,91	0,54	0,09	0,03
1980	2,52	1,48	0,33	0,11

Sources: Compiled from student figures in Table 15 and population figures in Appendix A.

6.2 UNIVERSITY DEGREES

The number of degrees awarded to Blacks and Whites is given in Table 17. A breakdown for the four race groups for 1980 is also shown. The percentage distribution of degrees is also depicted in Figure 4.

Table 17 shows that, in spite of a decline since 1970, White students still obtained more than eighty five per cent of all university degrees. The number of degrees awarded to Indians was slightly higher than that of Africans reflecting the low percentage of university graduates in the latter group. The figure for Coloureds in 1980 was far lower than both the Indian and African groups.

TABLE 17 : University Degrees Awarded in 1970, 1975 and 1980

YEAR	WHITES	BLACKS	TOTAL		
1970	9 243 (93,2%)	674 (6,8%)	9 917 (100,0%)		
1975	12 695 (89,8%)	1 442 (10,2%)	14 317 (100,0%)		
1980	17 573 (85,6%)	2 941 (14,4%)	20 514 (100,0%)		
YEAR	WHITES	INDIANS	AFRICANS	COLOUREDS	TOTAL
1980	17 573 (85,6%)	1 121 (5,5%)	1 103 (5,4%)	717 (3,5%)	20 514 (100,0%)

Sources: South African Statistics - 1980; Departments of National Education and Internal Affairs - Annual Reports - 1981; Education and Manpower Production (Blacks), No. 2, 1981, University of the Orange Free State.

6.3 ADVANCED TECHNICAL EDUCATION

The student enrolment for advanced technical education at technikons in 1981 and 1982 is given in Table 18.

The alarming feature of Table 18 is the low number of Africans getting

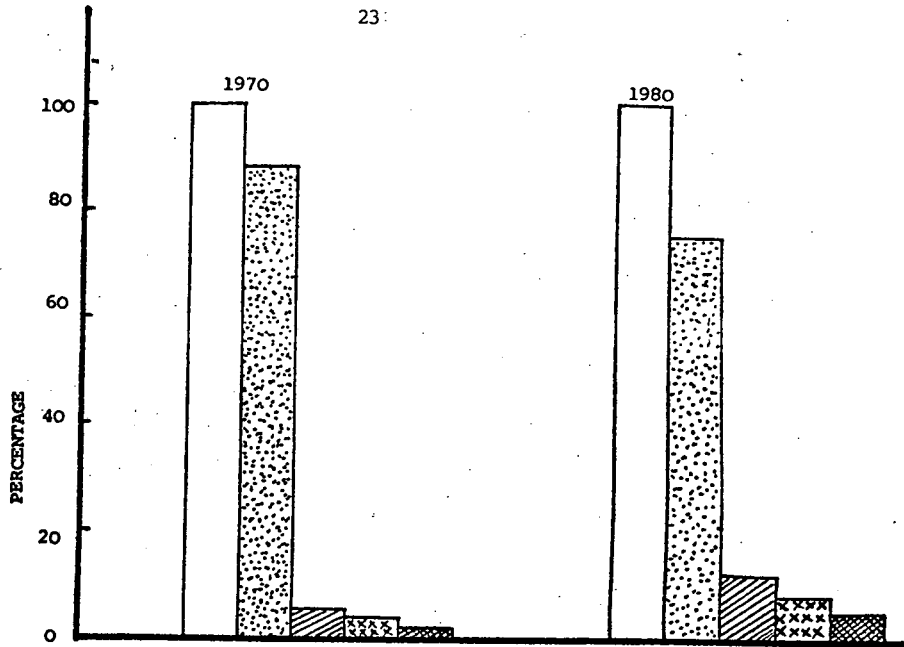


FIGURE 3 PERCENTAGE DISTRIBUTION BY RACE
OF STUDENTS AT UNIVERSITY :
1970 AND 1980

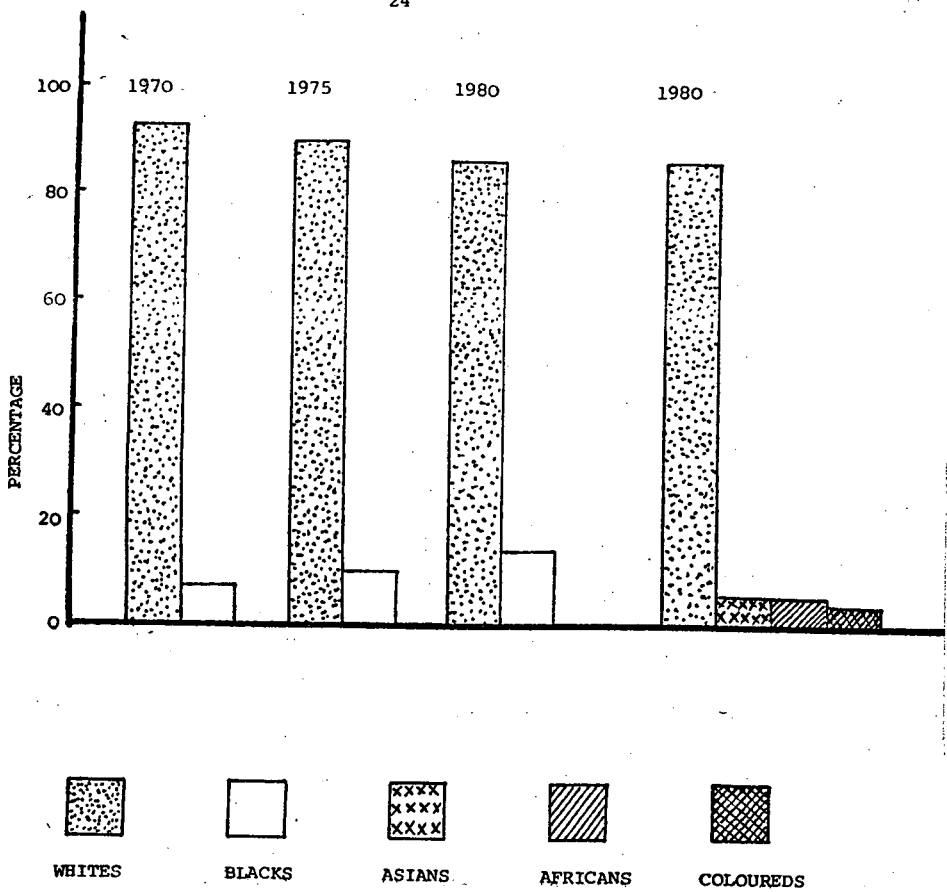


FIGURE 4 PERCENTAGE DISTRIBUTION BY RACE
OF UNIVERSITY DEGREES :
1970, 1975, 1980

advanced technical education. White student percentage was on average 6,5 times more than Black students in 1981 and 1982.

TABLE 18 : Technikon Enrolment (Post-Matric) By Race 1981 and 1982

YEAR	WHITES	AFRICANS	COLOUREDS	INDIANS	TOTAL
1981	21 753 (86,6%)	641 (2,6%)	1 428 (5,7%)	1 291 (5,1)	25 113 (100,0%)
1982	23 620 (86,8%)	524 (1,9%)	1 676 (6,2%)	1 400 (5,1%)	27 220 (100,0%)

Source: 'Educational Statistics - 1981 and 1982 Summary' - Statistical News Release P.23 - 18-6-1982. Central Statistical Services, Pretoria.

There are 8 technikons for Whites, 3 for Africans and 1 each for Coloureds and Indians.

Finally, Table 19 provides some information regarding diplomas and certificates awarded by technikons.

TABLE 19 : Number of Diplomas and Certificates Awarded by Technikons : Whites and Africans (1978 and 1979) and Indians (1980)

YEAR	WHITES	AFRICANS	INDIANS
1978	5 918	165	-
1979	6 813	192	-
1980	-	-	184

Sources: South African Institute of Race Relations - Annual Survey, 1981. Department of Internal Affairs - Annual Report, 1981. (Figures for Coloureds not available).

The figures in Table 19 once again underline the underdevelopment of the Black education system, reflected in the disproportionately low number of Black diplomas.

7 LITERACY AND ADULT EDUCATION LEVELS7.1 LITERACY

The concern with education extends beyond a consideration of enrolment patterns, teachers and the putput of schools and universities to an examination of the general level of literacy of the population. Table 20 shows the percentage of the adult population that is illiterate in each race group. The adult age is taken as 15 years and over.

TABLE 20 : Percentage and Number of Adult Population Illiterate -
By Race, 1980

RACE	PERCENTAGE	NUMBER
Africans	33,0	+ 3,3 million
Coloureds	15,5	+ 247 000
Indians	7,6	+ 39 000
Whites	0,7	+ 23 000

Source : Compiled from South African Statistics, 1982. African figures exclude Transkei, Bophuthatswana and Venda.

Although the African illiteracy figures are an improvement from the 1960 and 1970 figures of 60,5 per cent and 50,6 per cent respectively there is nevertheless a large and in absolute terms a growing problem of illiteracy among the African population.

The number of adult Africans illiterate almost equalled the whole of the Coloured and Indian population (approximately 3,4 million) in 1980. As this illiteracy figure does not include those in the 'independent homelands' it seems likely that the number of illiterate adult Africans in South Africa is in excess of 4 million.

7.2 ADULT EDUCATION LEVELS

Adult education levels are good indicators of past educational development. This section compares the educational qualifications obtained by the different races. Table 21 lists the highest qualifications obtained from matriculation for the years 1970 and 1980. Table 22 shows the racial composition of the population during these years.

TABLE 21 : Adult Education Level by Race (Highest Qualification Obtained)

Qualification	Whites	Coloureds	Indians	Africans	Total	Year
MATRIC	585 514 91,0%	13 689 2,1%	15 369 2,4%	29 166 4,5%	643 738 100,0%	1970
	884 180 79,5%	42 540 3,8%	52 340 4,7%	133 240 12,0%	1112 300 100,0%	1980
DEGREE	104 511 95,5%	1 095 1,0%	2 392 2,2%	1 411 1,3%	109 409 100,0%	1970
	190 760 90,7%	3 760 1,8%	7 920 3,8%	7 720 3,7%	210 160 100,0%	1980
DIPLOMA Plus Std 10	169 805 90,5%	6 204 3,3%	3 767 2,0%	7 815 4,2%	187 591 100,0%	1970
	307 360 85,3%	15 660 4,4%	10 500 2,9%	26 660 7,4%	360 180 100,0%	1980
DIPLOMA Plus Std 9 or lower	34 118 45,0%	8 498 11,2%	1 304 1,7%	31 932 42,1%	75 852 100,0%	1970
	70 740 51,1%	15 900 11,5%	4 060 3,0%	47 620 34,4%	138 320 100,0%	1980

Sources: Compiled from South African Statistics, 1980 and 1982. 1980 African figures exclude Transkei, Bophuthatswana and Venda.

TABLE 22 : Racial Composition of the Population in 1970 and 1980
(Percentages)

YEAR	WHITES	COLOURED	INDIANS	AFRICANS	TOTAL
1970	17,3	9,5	3,0	70,2	100,0
1980	18,2	10,5	3,3	68,0	100,0

Sources: Compiled from South African Statistics, 1980 and 1982. 1980 figures exclude Transkei, Bophuthatswana and Venda.

The statistics of Table 21 show clearly the results of decades of neglect of Black education. The African and Coloured statistics are especially dismaying when considered in relation to the size of the respective populations.

Black adults, in total, made up only 20,5 per cent of all adults with matriculation in 1980. Of this figure Africans constituted 4,5 per cent, Coloureds 2,1 per cent and Indians 2,4 per cent. The 1980 university degree figure is even worse with Black adults only making up 9,3 per cent of all adults with degrees.

Black adults fare better in the diploma category especially where a matriculation is not required but even here the Black adult share had declined to below 50 per cent in 1980 from 55 per cent in 1970.

8 EDUCATION AND EMPLOYMENT

A country's educational policy usually has two main objectives: to meet the demand of individuals for their own development and to meet the needs of society for its general development. In a free society the first objective is served by making education available to all citizens irrespective of class, race or income. The second objective is served by seeing to it that industry as well as cultural and public institutions are provided with persons having the requisite general education and skills. Education and development are inextricably linked together: an analysis of a country's education system must, therefore, consider factors such as job opportunities and the supply and demand of skills in the wider society.

The effect of educational disparity in South Africa can be seen in the employment structure. The White working population has had a monopoly of skilled jobs while the vast majority of the Black working population has been confined to semi-skilled and unskilled jobs. This can be seen in Table 23 which gives the occupational distribution of Blacks and Whites in 1981.

Blacks are thus confined largely to the lower level jobs while there is an overwhelming preponderance of Whites in managerial and skilled positions.

TABLE 23 : The Occupational Distribution of Blacks and Whites in 1981

CATEGORY	PERCENTAGE DISTRIBUTION	
	BLACKS	WHITES
All Economically Active	70,0	30,0
Professional and Technical	36,0	64,0
Managerial and Executive	4,7	95,3
Clerical	33,9	66,1
Sales	40,4	59,6
Production Workers	86,9	13,1
Unskilled	99,7	0,3

Source: Compiled from Department of Manpower's 'Manpower Survey No. 14, 1981'. Data excludes employment in agriculture and domestic service and in the 'Independent homelands'.

The racial composition of South Africa's 'High Level Manpower' (HLM) also reveals a disproportionate distribution in favour of Whites. Table 24 shows the racial composition of High Level and Total Manpower in South Africa. It can be seen that Whites constitute over seventy per cent of South Africa's High Level Manpower while forming only 30 per cent of the total workforce. Africans, on the other hand, made up almost 55 per cent of the population (excluding the 'independent homelands') yet constituted only 17 per cent of the HLM.

TABLE 24 : Race Composition of South Africa's High Level and Total Manpower in 1979

RACE	HIGH LEVEL MANPOWER	TOTAL MANPOWER
Africans	17,1	54,6
Whites	71,9	30,0
Coloureds	7,8	11,4
Indians	3,2	3,9

Source: National Manpower Commission : Report on High Level Manpower in South Africa, 1980. Data excludes Transkei, Bophuthatswana and Venda.

The South African economy is thus characterised by a stratified or divided labour market,¹⁰ in which labour skills are, to a large extent, monopolised by the White workforce. The extent of the dominant position of White can best be evaluated by examining certain key categories of educated or high-quality manpower. Table 25 shows the percentage distribution of Blacks and Whites in certain key occupations in 1981.

TABLE 25 : Percentage Distribution of Whites and Blacks in Some Key Occupations : 1981

OCCUPATION	WHITES	BLACKS
Engineers	98,6	1,4
Architects	99,1	0,9
Doctors	89,7	10,3
Dentists	96,4	3,6
Chemists (Industrial)	93,0	7,0
Pharmacists	97,1	2,9
Accountants	98,2	1,8
Draughtsmen	94,0	6,0
Quantity Surveyors	97,5	2,5

Source: Manpower Survey No. 14 (1981). Excludes Transkei, Bophuthatswana and Venda.

The figures of Table 25 show clearly that a significant number of Blacks has been prevented by insufficient and poor quality education from reaching the higher level occupations.

9 CONCLUSION

The underdevelopment of Black education is clearly reflected in the school enrolment patterns, especially at the secondary level, in inadequate per capita state expenditure on Black education, in the lack of qualified teachers, and the relatively small number of Black matriculants and university graduates. In addition, there is, in absolute terms, an increasing number of Black adult illiterates and Black adults with post-matric qualifications comprise only a small percentage of the total adult population.

Furthermore, the Black education system has failed to train sufficient Black people with skills. As a result there is a growing shortage of skilled and professional manpower.

The system of Black education thus has deeply entrenched and chronic problems which can only be alleviated by radical qualitative and quantitative restructuring.

However, even the best education system is limited in the extent to which it can contribute to the advancement of the individual. In the final analysis the pupil is part of his broader environment which in the case of Black South Africans is often an environment of poverty and deprivation.

10 FOOTNOTES

1. 'Education and Manpower Production, (Blacks), No. 3, 1982'. Research Unit for Education Planning, University of the Orange Free State, 1983.
2. Many of the concepts used in this section have been adopted from: F.E. Auerbach, 'Measuring Educational Development in South Africa', South African Institute of Race Relations, Johannesburg, 1979.
3. Auerbach, op.cit., p.20.
4. 'The Star', 29.3.1983.
5. 'Financial Mail', 22.5.1981.
6. 'The Star', 13.1.1984.
7. Human Sciences Research Council: 'Provision of Education, in the RSA, Report of the Main Committee', Pretoria, July, 1981. p.59.
8. Nusas: 'The Crisis in Education', 1982.
9. The National Manpower Commission has defined High Level Manpower as 'all persons engaged in the professional and semi-professional occupations, technicians and management personnel of all kinds, but excluding farmers, artisans and clerks at the lower levels' - from the National Manpower Commission's Report on High Level Manpower in South Africa, 1980, p.1.
10. In a stratified or divided labour market there are two distinct sectors, a primary sector and a secondary sector. The primary sector is associated with high wages, good working conditions, better chances of advancement, employment-stability and strong unionisation. The secondary sector, on the other hand, offers jobs that are low-paying, with poor working conditions, employment instability and lack of unionisation. Mobility barriers prohibit the movement of workers from the secondary to the primary sector.

APPENDIX ADERIVATION OF ADJUSTED SCHOOL ENROLMENT RATIOS (ASERs)TABLE A1Adjusted School Enrolment Ratios - Whites : 1920 - 1980

Year	Population (1000s)	Percentage in 5-19 age group	Number in 5-19 age group (1000s)	Eighty per cent (school going age) (1000s)	Pupils (1000s)	ASER
1920	1 500	34,0	510	408	320	78,4
1930	1 801	32,0	576	461	371	80,5
1940	2 160	29,5	637	510	418	82,0
1950	2 608	27,9	738	590	506	85,8
1960	3 069	29,7	911	729	692	94,9
1970	3 831	29,1	1 115	892	854	95,7
1980	4 528	27,5	1 245	996	959	96,3

TABLE A2Adjusted School Enrolment Ratios - Indians : 1920 - 1980

Year	Population (1000s)	Percentage in 5-19 age group	Number in 5-19 age group (1000s)	Eighty per cent (school going age) (1000s)	Pupils (1000s)	ASER
1920	164	35,7	59	47	7	14,9
1930	199	38,2	76	61	17	27,9
1940	247	39,7	98	78	29	37,2
1950	351	39,8	140	112	55	49,1
1960	476	40,8	194	155	128	82,6
1970	642	37,7	242	194	163	84,0
1980	821	35,1	288	230	218	94,8

APPENDIX B

DERIVATION OF HIGH SCHOOL ENROLMENT RATIOS (HSERs) AND SECONDARY SCHOOL ENROLMENTS AS A PERCENTAGE OF TOTAL SCHOOL ENROLMENT

TABLE B

Secondary School Enrolments as a Percentage of the 5 - 19 Age Group (HSER) and of Total School Enrolment

Year	Number in 5 - 19 age group (1000s)	School Roll (1000s)	High School Roll (1000s)	% Roll at High School	HSER
WHITES					
1960	270	692	215	31,7	79,6
1970	342	854	311	36,4	90,9
1980	406	959	362	37,7	89,2
INDIANS					
1960	56	128	16,5	12,9	29,5
1970	74	163	40	24,5	54,1
1980	86	218	69	31,7	80,2
COLOURED					
1960	143	305	28,4	9,3	19,9
1970	218	515	59	11,5	27,1
1980	320	752	142	18,9	44,4
AFRICANS					
1960	1 033	1 502	37,2	2,5	3,6
1970	1 575	2 738	258	9,4	16,4
1980	2 225	4 900	779	15,9	35,0
TOTAL POPULATION					
1960	1 502	2 627	297,1	11,3	19,8
1970	2 209	4 270	668	15,6	30,2
1980	3 037	6 829	1 352	19,8	44,5

Sources: Compiled from (i) F.E. Auerbach - Measuring Educational Development in South Africa.

(ii) South African Statistics - 1980, 1982.

(iii) South African Institute of Race Relations, Annual Survey, 1981.

(iv) Education and Manpower Production (Blacks), No. 1, 1980, University of the Orange Free State.

(v) S. Bignaut - Statistics on Education in South Africa, 1968-1979.

Note: ASER = $\frac{\text{Column 4}}{\text{Column 2}} \times 100$

REFERENCES

1. Auerbach, F.E. Measuring Educational Development in South Africa, S.A. Institute of Race Relations, Johannesburg, 1979.
2. Blignaut, S. Statistics on Education in South Africa, 1968-1979, S.A. Institute of Race Relations, Johannesburg, 1981.
3. Department of Education and Training Annual Report, 1981.
4. Department of Internal Affairs Annual Report, 1981.
5. Department of Manpower Manpower Survey, No. 14, 1981.
6. Department of National Education Annual Report, 1980.
7. Department of Statistics S.A. Statistics, 1980 and 1982.
8. Human Sciences Research Council Provision of Education in the RSA : Report of the Main Committee, Pretoria, July, 1981.
9. KwaZulu, Lebowa, Bophuthatswana, Gazankulu, Venda and Kangwane Departments of Education : Annual Reports - various years.
10. National Manpower Commission Report on High Level Manpower in South Africa, RP 113/1980.
11. Nusas The Crisis in Education, 1982.
12. S.A. Institute of Race Relations Annual Surveys, 1980, 1981.
13. Unesco Statistical Yearbook, 1981 and 1982.
14. University of the Orange Free State, Research Unit for Education Planning Education and Manpower Production (Blacks), No. 1 (1980), No. 2 (1981) and No. 3 (1982).