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**From  
Rhodesia  
to  
Zimbabwe**

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# **Skilled labour and future needs**

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FROM RHODESIA TO ZIMBABWE

# Skilled Labour and Future Needs

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### About the author

COLIN STONEMAN has been concerned with the problems of Zimbabwe for a number of years. He has undertaken a most comprehensive assessment of foreign capital in the country, published in *World Development* in January 1976, which is to be followed soon by a further article in the *Review of African Political Economy*. He has also been directly involved in the debate about education in Britain. He co-edited the Penguin book *Education for Democracy*, published in 1970 with a second edition in 1972. This is to be followed early next year by *Education and Equality*. The author lectures at the University of Hull.

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### About the series

FROM RHODESIA TO ZIMBABWE consists of a collection of papers which address the social, economic, administrative and legal problems to be faced by an independent government of Zimbabwe. CIIR has launched this series in collaboration with the Justice and Peace Commission in Rhodesia as a contribution to the important debate about the creation of a just society in Zimbabwe — a debate which the Commission has been concerned to promote since its inception in 1971. Each paper will take as its starting point the question: how can the new government of Zimbabwe provide for the basic needs of the poorest sectors of society? The views expressed in individual papers are those of the contributors; they do not necessarily reflect the views either of CIIR or of the Justice and Peace Commission.

## Introduction

This booklet is concerned with the people and skills that will be available to the future state of Zimbabwe, and the demands that will be made on them if basic human needs are to be met. It does not pretend to even approach a full 'manpower planning' study for the future state of Zimbabwe for two main reasons. First, the basic orientation that the economy will take is undetermined at the time of writing, so that it would be absurd to attempt to emulate even the most superficial of earlier studies which merely extrapolated economic growth rates and then scaled up demands for various types of labour *pro rata* on the assumption that the structure of the economy in question was not going to change very much. In the case of Zimbabwe no one disputes that even on the most conservative outcome the structure will change considerably. Second, the booklet has had to be prepared from the available sources at a distance from the country. Official statistics and contacts inside Rhodesia have been able to supply most of the available data, but there has been little access to results of studies continuing under the auspices of the Whitsun Foundation, ACCOR, or the African-American Scholars Council in America.

There are problems connected with both sex and race descriptions in the official reports and statistics. I have tried to avoid the common usage 'manpower' (there are more black women workers in employment than *all* white workers), preferring 'labour force' or 'work force'. I have also tried to avoid the official labels 'European, Asian, Coloured and African', preferring 'white and black'. In most cases the 'Asian and Coloured' component is numerically too small to affect the proportions very much, but because many of the more recent statistics include them with 'Europeans', and because their degree of urbanization and wage rates are closer to those of whites than blacks, I have reluctantly decided to include them under 'whites' rather than 'blacks'. I do *not* wish to imply by this that they have been incorporated completely into the structures of white oppression (for they too are victims of it), nor that in more normal circumstances they will not become full citizens of a black Zimbabwe. (What proportion of 'Europeans' will wish or be able to be so considered is another question.)

Wage rates and prices are given in Rhodesian dollars. The rate of exchange in late 1977 was Rh\$1 = £0.82, (devaluated in April 1978 to Rh\$1 = £0.77) although this value is somewhat artificial as Rhodesian currency is restricted to internal use and is not acceptable for international trading. (Rhodesia uses Rands, Swiss Francs or US Dollars.) A significant devaluation is likely when international convertibility occurs.

The booklet will be divided up into five sections as follows:

- I. *Overview of the economy, population and labour force.*
- II. *The demand for labour.* This will include an historical survey of the demand for labour since 1961, with breakdown by race, sex, skill and employment status.
- III. *Labour supply.* This will be chiefly historical, but will contain some extrapolation in broad demographic terms into the near future.
- IV. *Basic needs of the Zimbabwean people.* The main areas to be addressed will be education, health and the infrastructure.
- V. *Three scenarios.* The implications of an internal settlement, an Anglo-American settlement and a more radical basic needs settlement.

# Skilled Labour and Future Needs

## I. OVERVIEW OF THE ECONOMY, POPULATION AND LABOUR FORCE\*

The basic parameters of Rhodesia and its economy hitherto are quite well known, and will only be outlined very briefly here.<sup>1</sup> Europeans have never formed even as much as 6 per cent of the population: the peak of 5.7 per cent was reached in 1960<sup>2</sup> since which time the proportion has declined to just under 4 per cent by mid-1977.<sup>3</sup> So-called Coloureds and Asians together make up less than 0.5 per cent, so that black Africans account for over 95 per cent of a total population approaching seven million.

*Table I: POPULATION ESTIMATES BY BROAD ETHNIC GROUP  
JUNE 1977*

	<i>Population</i>	<i>Per cent</i>
Africans	6,440,000	95.54
Europeans	268,000	3.98
Asians	10,300	0.15
Coloureds	22,500	0.33
TOTAL	6,740,800	100.00

*Source: Monthly Digest of Statistics, January 1978 (Supplement) Table 1.*

\*My thanks are due to Roger Riddell for help in preparing this booklet.

1. For further details see other booklets in the From Rhodesia to Zimbabwe series and the Mambo Socio-Economic series. Also, Colin Stoneman, 'Foreign Capital and the Prospects for Zimbabwe', *World Development*, Vol.4, No.1, January 1976, pp.25-58.
2. Calculated from *Rhodesia, Census of Population, 1969*, C.S.O. Salisbury, 1977.
3. *Monthly Digest of Statistics*, October 1977, (supplement), C.S.O. Salisbury.

The gross domestic income accruing to this population approached \$2,000 million in 1976, see Table 2. Of this only 58 per cent was paid in wages and salaries (a very low proportion by international standards), 34 per cent to whites and 24 per cent to blacks. Imputed rent accounted for about 2 per cent, leaving 40 per cent for gross operating profits, of which less than 6 percentage points was attributed to black rural households. For the whites, wages and salaries alone came to \$2,158 per capita (before including imputed rent, profits of unincorporated enterprises, companies, corporations and public enterprises, most of which benefited whites disproportionately) as compared with \$95 per capita for blacks, even after including the gross operating profits of rural households (own consumption, capital formation and net sales) along with wages and salaries.

*Table II: NATIONAL INCOME, 1976*

	<i>\$ Million</i>	<i>Percentage</i>
<b>Wages and Salaries</b>		
white (120,000)	666.8	
black (919,000)	481.2	
Total	<b>1,148.0</b>	<b>58.3</b>
<b>Imputed Rent</b>	<b>39.6</b>	<b>2.0</b>
<b>Gross Operating Profit</b>		
Black Rural Households:		
Own Consumption and Investment	86.0	
Net Sales	20.8	
Other Unincorporated Enterprises	123.2	
Private and Public Enterprises	551.9	
Total	<b>781.9</b>	<b>39.8</b>
<b>Gross Domestic Income at Factor Cost</b>	<b>1,969.5</b>	<b>100.0</b>

*Source: Monthly Digest of Statistics, January 1978 (Supplement) Table 12.*

Restricting attention to average earnings per employee gives a somewhat more favourable picture for blacks. In 1976 average black earnings were \$517 as compared with \$5,583 for whites. The ratio of 1:10.8 has remained remarkably constant over the last decade, in fact widening



very slightly, and compares unfavourably even with the South African situation. The worst ratio is in the agriculture and forestry sector where it reaches 1:24.5; excluding this sector the average ratio falls to 1:7.8. Only in two sectors: health; and finance, insurance and real estate; does the ratio fall to just below 1:4; however these sectors only employ 13,000 blacks, less than 1½ per cent of the total. The details of wages and employment by race are given in Table III.

*Table III: WAGES AND EMPLOYEES BY RACE AND SECTOR, 1976*

<i>Sector</i>	<i>Whites</i>		<i>Blacks</i>	
	<i>Nos. 000s</i>	<i>Av. Monthly Earnings \$</i>	<i>Nos. 000s</i>	<i>Av. Monthly Earnings \$</i>
Agriculture and Forestry	5.9	409.6	350.2	16.7
Mining and Quarrying	3.9	632.5	61.2	47.2
Manufacturing	21.9	528.9	131.0	67.1
Electricity and Water	1.9	574.6	4.8	64.6
Construction	5.3	483.0	46.2	56.4
Finance, Insurance and Real Estate	8.4	448.0	3.7	112.6
Distribution Restaurants and Hotels	19.2	383.7	55.3	59.8
Transport and Communication	14.7	499.4	31.1	89.5
Public Administration	16.2	530.3	37.6	83.1
Education	7.3	429.2	29.6	97.2
Health	4.2	343.2	9.3	89.6
Domestic Service	n/a	—	126.1	32.7
Other Services	10.7	372.2	33.5	54.8
<b>TOTAL</b>	<b>113.0</b>	<b>465.2</b>	<b>920.0</b>	<b>43.1</b>

*Sources: Monthly Digest of Statistics, January 1978 (Supplement) Tables 6 and 7.*  
*Note: n/a = not available.*

It is clear that while the whites are rich by any international standards, the blacks are in general living near to the poverty line. About 80 per cent of black urban wages are below the family Poverty Datum Line, indicating the need for subsidies from the Tribal Trust Lands (TTLs) or the need to have a second income in most families. (Since

1969 the number of black women in employment has more than doubled, whilst total black employment has increased by less than a quarter. Needless to say, women are employed at much lower wage rates than men.) It is likely that an 'internal' settlement or other 'moderate' settlement would have no impact on the poverty of the majority of blacks, but would merely allow a small minority at present earning a quarter of white salaries to rise nearer to parity. Perhaps the two most important parameters of the Rhodesian situation which are beyond any immediate influence are the low per capita income of about \$300 and the population growth rate of over 3½ per cent per annum (one of the highest in the world). As the growth rate has already been high for over two decades the average age of the population is very young. It should be clear that even if the fertility rate falls sharply (of which there are no signs) the crude birth rate is likely to remain very high for some decades, for the number of potential mothers at present below child-bearing age greatly exceeds those at present of child-bearing age.

Immediate consequences of the high population growth rate are first that the population of working age is also expanding at over 3 per cent a year, implying over 100,000 new job-seekers each year in an economy employing under a million blacks (so that more than a half even in a good year have to depend entirely on the TTLs); second, and as a joint consequence with the low per capita income, redistribution of the inflated white wages would have only a small effect on black average earnings which would be cancelled out by population growth in a very few years in the absence of a doubling or more of the rate of increase of employment.

After the boom of the early federal years, employment stagnated until the late sixties when the post-UDI boom occurred under the enforced protection. Since 1975 the military situation and falling export markets have brought about a decline in employment. Table III gives the distribution between main industrial sectors by race. Black employees have not in recent years exceeded 16 per cent of the total black population. Also, only about 16 per cent of blacks reside in the main urban areas (compared with over 80 per cent of other races). These two similar figures arise because on the one hand almost a half of black employment is in white agriculture and mining (see Table III) and on the other because many urban workers are obliged to leave some or all of their families behind in the TTLs. In the seven largest

towns (excluding Wankie) in 1976 the black population was only about 2.5 times the number of employees.

In addition to the 920,000 black employees enumerated in the official statistics, there were at the time of the last census 51,910 blacks employed as follows: 18,920 self employed outside agriculture, 15,360 employees of black farmers and 16,910 employees of black businessmen.

From the census data adjusted for subsequent deaths, there are about 1,500,000 males between the ages of 16 and 60 and about the same number of females, giving an adult working population of approximately 3 million blacks. Thus only about 30 per cent of the adult black population is in formal employment.

As approximately 60,000 black employees are juveniles (under 16 years old) there are over 2 million adults (about one third of them men) living in and dependent upon agriculture in the Tribal Trust Lands and Purchase Areas. The TTLs and PAs are made up of some 685,000 household units, thus each household is having to support approximately three adults. As was shown in *The Land Question*, the TTLs, where the vast majority live, are acutely overcrowded and are increasingly incapable of supporting their growing population.

## II. THE DEMAND FOR LABOUR

### *i. Earlier estimates of the demand for labour*

In 1964 the Manpower Survey Sub-Committee of the (then) University College of Rhodesia and Nyasaland made estimates of requirements and supplies of 'High Level Manpower' (HLMP) over the period 1961-1970.<sup>4</sup> It defined HLMP as I: professional-administrative; II: technical-executive; III: skilled workers. Educational attainments required ranged from university degrees down to one to five years of apprenticeship or special training beyond Form III of secondary school. It estimated that in 1961 78,200 out of the total of 101,000 economically active whites could be considered to be in one of these three categories. On the basis of regarding most blacks earnings over £15 a month as being skilled,

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4. W.L. Taylor and D.S. Pearson, *The Requirements and Supplies of High Level Manpower in Southern Rhodesia, 1961-1970*, Department of Economics, University College of Rhodesia and Nyasaland, Occasional Paper No.3, Salisbury, 1964.

and adding in those in possession of a Master Farmer's Certificate (over 9,000 were thus qualified to become farmers in the Native Purchase Areas) a figure of 46,400 was arrived at. Of these only about 80 were thought to be in category I, and under 2,000 in category II. The total HLMP was thus estimated at 125,000. Extrapolation to 1970 on the basis of a projected growth rate of 4.1 per cent per annum produced a forecast of a total requirement of between 174,000 and 200,000 (depending on whether demand grew at the same rate as GDP or 25 per cent faster). After revisions to allow for direct evidence from the education sector, and taking account of replacement requirements, it was calculated that from 96,000 to 107,000 new people would need to be trained (4,000 to 4,500 in category I, 20,800 to 22,300 in category II and 71,400 to 80,500 in category III).

Estimates of future output from the education system then produced a prediction of a short-fall of between 23,000 and 34,000 people in 1970 (between 13 and 18 per cent of the total HLMP), concentrated in category III, of which it was thought that immigration might make up between a half and a third. The assumption was that there would be a net inflow of 40,000 people between 1961 and 1970 of whom 13,000 would be HLMP. In the event, average growth rate of gross domestic product was not far from the estimate, although made up of negative or near-zero rates in the first half of the period and much higher than average ones towards the end. On the other hand, net white immigration was almost zero over the period (net immigration reached significant levels only in the period 1968-72, but by 1970 had barely made good the losses of 1961-67). Colclough and Jolly<sup>5</sup> believe that the plan underestimated the demand for 'skilled and educated manpower' by a factor of 0.6 to 0.9, implying that 220,000 to 290,000 such workers would have been needed in 1970. As we shall see below only about a half of this number were actually employed, but although there have been persistent complaints from industry about the shortage of skilled labour such a short-fall is hardly conceivable. More likely there was a serious over-estimate in the plan for 1961, but in addition there were probably a number of *de facto* skilled blacks in 1970 not recorded in the statistics.

The statistics themselves are far from explicit, but drawing on the results of the 1969 Census, it seems likely that in 1970 there were

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5. R. Jolly and C. Colclough, 'African Manpower Plans: an evaluation', in International Labour Office, *Employment in Africa*, ILO, Geneva, 1973.

about 115,000 economically active whites. If 80 per cent were HLMP (as compared with 77 per cent in 1961), the white contribution was 92,000. The census also shows that only some 25,000 blacks had the minimum educational qualifications (although few of these would have had post-school training apart from teachers and health workers, and a number were economically active), and that about 19,000 were self-employed (see Table A in the Appendix). Even assuming that all these, together with some 8,000 farmers, were skilled only yields a figure of 52,000, or 144,000 including the whites. This figure is well below the plan's lowest estimate of 174,000, and only 19,000 above its estimate for 1961.

An alternative approach is to follow P.S. Harris<sup>6</sup> and consider only those workers sufficiently skilled to be able to consider their jobs to be reasonably secure or to be able to command wages in excess of \$70 per month. He estimated that this showed there to be only 20,000 skilled and secure semi-skilled black workers in the early 1970s, a figure lower than, but not seriously inconsistent with the above. But he also quotes figures showing that 30,000 blacks earned more than \$70 from employment in all industries except agriculture, domestic service and mining in 1972. An estimate for the latter would increase the figure by at most 3,000 to 33,000; by no means all of these would be more than semi-skilled.

If therefore we take a round figure of about 25,000 skilled black employees in 1970 we should not be too far wrong. These would be made up of about 14,000 trained teachers, a few thousand health workers and other workers in the public service, and at most 10,000 skilled or semi-skilled workers in industry, mostly near the minima of lower grades. Adding about 8,000 PA farmers and 7,000 of the 19,000 self-employed blacks whose job descriptions in Table A appear to indicate the need for skills, the total black HLMP appears to have been only about 40,000, making a total with the whites of about 130,000, hardly more than the estimate for 1961.

There can be little doubt that this figure has expanded considerably since 1970 for several reasons, although once again the hard evidence is very fragmentary. There has been a continuing if slow process of job fragmentation (generally resisted by white workers), which in some

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6. P.S. Harris, *Black Industrial Workers in Rhodesia*, Mambo Socio-Economic series, No.2, Mambo Press, Gwelo, 1974, p.15.

industries (in particular the building industry) has allowed blacks to enter a number of skilled positions (albeit after regrading); and since 1976 a return to a 'multiracial' policy on the part of big business and government has become apparent, although this has probably taken the form of appointing 'token black' directors or assistants in highly visible positions rather than opening up job opportunities for skilled and potentially skilled blacks. Perhaps most significant, with the absence of an increasing proportion of whites on military service, it has become common for black assistants or deputies, almost invariably regarded as unskilled or semi-skilled at best on a formal basis, to perform supervisory, skilled or organisational jobs at least as successfully as their absent nominal superiors.

As early as 1975, examples of the following type can be found: 'In each of its several depots around the country a particular company employs qualified mechanics, each of whom has an African assistant. The assistant in each case has received sufficient training from the mechanic under whom he works that the mechanics stated explicitly that without their assistants they could not get through their work load and that the work the African assistant did was to all intents and purposes the same as that of the mechanic, i.e. artisan's work. The assistants, according to management, are at best semi-skilled and were so categorised although in terms of their actual job content they should be in the skilled category.'<sup>7</sup> Similarly: 'Interviews with the workshop foreman indicated that it was unlikely that an African apprentice would be accepted . . . A significant point, however, was the statement by the workshop foreman that, when the electrician is on leave, his assistant — an 'untrained' African fills in for him'.<sup>8</sup>

The conclusion must therefore be that, in part at least, the absence of adequate official statistics of black skills is unimportant because they would seriously understate the extent of such skills in any case. However, it still leaves us with the problem of attempting by other means to assess the needs of the present Rhodesian economy for particular skills, and the ability of the black population to provide them should a high proportion of the whites leave as Zimbabwe is born.

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7. M.W. Murphree (Ed.), *Education, Race and Employment in Rhodesia*, Association of Round Tables in Central Africa and The Centre for Inter-racial Studies University of Rhodesia, Salisbury, 1975, p.215.

8. Murphree (1975), p.247.

## *ii. Skills employed by the Rhodesian economy*

There are two main sources of information on the skills that have been available to Rhodesian industry, mainly in the form of trained white workers. These are the 1969 Census of Population and the annual reports of the Apprenticeship Training and Skilled Manpower Development Authority.<sup>9</sup>

Six industries (and hairdressing) have trades designated for apprenticeship training. Table B in the Appendix shows the number of contracts completed in 1972-1976 and the numbers due to be completed in the period 1977-1981. Table C shows the average number of apprentices and journeymen in 1976. In 1976, there were 3,741 apprentices being trained on the job by 13,663 already qualified journeymen in the following industries: Aircraft – 247; Building – 284; Electrical – 682; Hairdressing – 99; Mechanical Engineering – 1,500; Motor – 207; and Printing – 222. As apprenticeships last for five years, only a fifth of these 3,741 will qualify on average in the years 1977 to 1981, that is 748 per year, or about 5.5 per cent of the current force of journeymen. As the Parliamentary Select Committee on Apprenticeship and Technical Education estimated that at least 4 per cent of the existing stock of journeymen would need to be replaced each year, we can see that these figures represent very little expansion, despite the repeated complaints about the shortage of skilled labour. Indeed until 1972, as Harris shows, even this critical replacement ratio of 4 per cent was not achieved.<sup>10</sup> By no means all workers are in the six industries concerned: in 1969 there was a total of about 21,500 whites in the production and transport equipment operators industries. Non-designated occupations included mining, much metal processing, spinning, food processing, tailoring and dressmaking, some mechanics and many minor industries, plus vehicle drivers and other vehicle operators. Most of these workers would clearly be skilled despite not having served formal apprenticeships. Roughly speaking we may take it that about two-thirds of skilled production workers are in designated trades and so covered by the statistics of the authority.

Information as to the race of apprentices is patchy, but Table IV shows the available statistics for the breakdown of apprentices by racial origin. The figures published up to 1969 show the numbers of blacks registered to be derisory, probably because of the unwillingness

9. As we shall see, neither of these provides comprehensive data.

10. Harris (1974) p.49.

of existing skilled workers (almost exclusively white) to allow blacks to be apprenticed, and the refusal of employers to risk antagonising their skilled workers by insisting. Recently there have been minor breakthroughs of blacks into mechanical engineering and in particular, building, where skilled worker unions have been weak and unable to resist job fragmentation. Here, black apprentices now exceed Europeans, and in 1975 they took more than a half of all new registrations. Nevertheless, the overall figures still only put blacks at 11 per cent of the total of 3,851 and 18.1 per cent of new registrations in 1975.<sup>11</sup> A total of 413 African apprentices undergoing training in 1975, on courses lasting five years, still represents grossly inadequate opportunities in relation to a work force of nearly a million black employees. No doubt since 1976 the proportion of black apprentices has continued to grow, but the increase would need to be many-fold before adequate skills were being developed for the needs of an independent state. Finally there are a considerable number of reported skilled vacancies. In 1977, 1,872 vacancies were recorded as follows: 496 professional and technical workers, 741 administrative and managerial posts, 152 sales and service workers and 483 workers designated for apprenticeship training.<sup>12</sup>

**Table IV: APPRENTICESHIPS REGISTERED EACH YEAR 1961-1976**

<i>Year</i>	<i>Number of apprentices</i>	<i>Number of blacks</i>	<i>Percentage of blacks</i>
1961	308	n/a	—
1962	436	10	2.3
1963	371	9	2.4
1964	378	8	2.1
1965	445	7	1.6
1966	378	9	2.3
1967	396	5	1.3
1968	498	17	3.4
1969	531	49	9.2
1970	600	n/a	—
1971	751	n/a	—
1972	807	n/a	—
1973	798	n/a	—
1974	880	100	11.4
1975	1,211	219	18.1
1976	964	143	14.8

*Source:* ILO, *Labour Conditions and Discrimination in Southern Rhodesia (Zimbabwe)*, ILO, Geneva, 1978, p.63. *Note:* n/a = not available.

11. J.J. Swanepoel, *Jobs for boys and girls after secondary school education*, Rio Tinto, Salisbury, 1975, Table 12.
12. *Monthly Digest of Statistics*, October 1977 (supplement), Tables 10 and 11.



As no statistics are available as to the *occupational* breakdown of black employees, we must be content with the industry breakdown provided in the 1969 Census. This is shown in Table D in the Appendix, but it gives no indication of the skills of respective employees in each sub-sector. An occupational breakdown was provided for whites (by race and sex) and a simplified version of this is given in Table E in the Appendix. Although about a decade out of date, this is the most detailed information available as to the skills demanded by the Rhodesian economy. And as whites constituted over 80 per cent of the skilled manpower, the figures give a good indication of the demand for particular skills in the economy. As total employment in 1969 was 835,000 (including 100,000 whites) and reached 1,040,000 in June 1977, a crude scaling up by a quarter may possibly be applied.

Finally we come to the Graduate Manpower Survey conducted by J.P. Danckwerts referring to the situation in 1971-73. He covered graduates and some others with equivalent qualifications (engineers, pharmacists and architects mainly) in nine main areas, the results of which are summarized in Table V.

*Table V: NUMBER OF GRADUATES IN SELECTED SECTORS IN 1971-72*

<i>Sector</i>	<i>No. of graduates</i>	<i>Approx. annual requirements*</i>
African education	520	75
European education	1,000	150
Ministry of agriculture	355	50
Legal Profession	175	37
Medical Profession	742	40
Dental Profession	127	8
Pharmacy	300	25
Commerce and Industry	614	150
Public Service: Professional and Technical Group	400	90
Public Service: Administrative Group n.e.s.	135	30
Engineering	1,024	95
University of Rhodesia	271	45
TOTAL	5,663	795

\*As estimated in the source for early 1970s.

Source: J.P. Danckwerts: *Graduate Manpower Survey 1971/3*, mimeo 1973.

In African education about 350 of the graduates were black, about 180 white, and there were some 320 white non-graduates. The Detailed Establishment Tables for 1970-71 show that there were 17 Heads, 12 deputy Heads and 268 teachers in African Senior Secondary Schools (all in established posts), and there can be little doubt that this was where the white graduates were concentrated. In Junior Secondary Education (F2 schools) there was only one established post (a Head); five Heads and 37 teachers were unestablished. In primary education there were 78 Heads (12 established) and 1,792 teachers (one established). By 1975 the position had improved for black teachers, at any rate in that teaching posts had been established. In secondary education there were 26 Heads, 15 Deputy Heads and 441 teachers. According to the Annual Report of the Secretary for African Education (which gives a slightly different total of 489 teachers in all), 89 of these were white. In primary education there were 91 Heads and 2,042 teachers, all but two of the latter being black. In round numbers there are probably now some 500 black graduate teachers who will be increasingly occupying the Headship posts even in secondary education. It should be noted that in 1975 only some 12 per cent of teachers were in government schools: the Annual Report gives, apart from the 400 black teachers in secondary schools, 1,176 black teachers in Mission, African Council, Committee and Rural Council schools. In 1976, only 58 black primary Heads were listed in government schools, together with 628 in other schools (the above types plus Sponsored Schools) and apart from 2,159 black teachers in government primary schools, 18,003 were listed in six types of other schools (the above plus Community Board Schools). Out of this total, 1,736 were listed as untrained. Teachers' minimum salaries are much closer for blacks and whites than for most other jobs: for a teacher with a degree and teachers' Certificate in 1975 salaries were \$4,725 for white males, \$3,924 for white females, \$3,759 for black males and \$2,994 for black females. However, lower down the scale, only blacks had Grade 2 and Grade 3 Teachers' Certificates for which the salary ranged from \$1,236 down to \$720.

In summary, in 1976 African education employed 23,163 teachers, including 388 whites. Around 500 black teachers were graduates, although it is not clear that coverage of the Graduate Manpower Survey in non-governmental schools was good, so that this figure may well be an underestimate. About 2,500 teachers were in established posts and so may certainly be considered to be highly skilled and secure in their employment. Some 17,500 others had some teaching qualification.

The European education sector need not be discussed in any detail as no qualified blacks were employed. In 1971 the Ministry employed 800 graduates and 540 non-graduate teachers, with about a further 200 graduates in private schools.

About 350 graduates were employed by the Ministry of Agriculture in 1971. At the time only about half of the roughly 50 annual requirements for recruitment were being provided inside Rhodesia. No opportunities were available for blacks in the Ministry of Internal Affairs, where they might have been employed in the TTLs. Seven black graduates were employed by the Ministry of Agriculture itself, probably in the PAs. Doubts were expressed in the survey as to whether even the four or five black graduates produced by the university each year would be absorbed.

In the legal profession only some 175 of the 500 posts were held by graduates, although all were destined to become graduate (or equivalent) posts. Prospects for blacks beyond the one or two graduates expected annually from the university were regarded as poor. Three black graduates were currently articled to become attorneys.

In 1971 there were 742 graduates on all medical registers in Rhodesia, apparently very few of them black. There was one doctor to 7,700 of the population, but this statistic is meaningless in the light of the extraordinary disparities between whites and blacks (one to 685 for the former, one to 17,000 for the latter) and between urban and rural dwellers (one to 1,650 for the former, one to 45,500 for the latter). In 1977 the Ministry of Health listed 919 doctors, 4,686 State Registered Nurses, 2,581 registered medical assistants, 2,753 nursing and maternity assistants and 358 health assistants.<sup>13</sup> A number of white doctors (at least 50) have left the country in recent years. No information is available on the race of these health workers, nor on the communities they serve, although it is fairly clear that more than half the doctors and most of the SRNs cater for the whites, whilst the lower grades of assistants are all that is regularly available for blacks in rural areas.

There appear to have been 127 dentists in 1972, hardly any of them trained locally (there is no dentist school in the country), and only 107 were thought to be practising. The ratio of dentists to population

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13. *Rhodesia, Report of the Secretary for Health for the year ended 31st December 1976*, Government Printer, Salisbury, Cmd.RR 13-1977, p.48.

was about one to 2,750 for whites and 'If time spent by private dentists treating Africans could be established, the ratio might be between 1:200,000 and 1:500,000.' It appears that only seven full-time dentists were available to blacks for fillings, plus a few other part-timers, and 'subsidised extractions, as a last resort.' In 1977, there were 152 dentists registered with the Medical Council of Rhodesia, almost exclusively white.<sup>14</sup>

In pharmacy there were some 300 graduates in 1972, of whom a few may have been black. There were thought to be some opportunities for blacks in the Ministry of Health and retail outlets in black areas. The University of Rhodesia was producing only a half or less of the 25 thought to be needed each year.

In commerce and industry 614 graduates were employed in 1971, 150 more were thought to be needed each year, and there were 70 vacancies (mainly for engineers). Only 21 blacks were included in this number: a geologist, two chemists, eleven in personnel, marketing and journalism 'where their race was an advantage', three in semi-vocational positions (like statisticians) three in 'non-essential' positions (i.e. where a non-graduate might well have been employed), and one clearly under-employed in a clerical position.

It was surmised that there might be a number more over-qualified for the jobs they were in, possibly even concealing their degrees from their employers. Plainly these 21 were negligible as compared with the few hundreds in government service: teaching, health and agriculture.

Table VI lists the numbers of graduates in the Professional and Technical Group and the Administrative Group of the Public Service (excluding agriculture, health and education) in 1972. Only two blacks are referred to in the report, both being (over-qualified) lawyers in the Deeds Office.

Although the report emphasises that the author does not believe that racial prejudice is the only cause of the difficulties that black graduates have in getting jobs (other causes being cultural), the replies to a questionnaire survey of commercial and industrial employers indicates that 371 out of 645 would not find African graduates acceptable. Neither the Ministry of Internal Affairs nor Rhodesia Railways had any 'suitable opportunities' for black graduates.

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14. *Ibid.*

Finally the report shows that most Rhodesian graduates in 1970 and 1971 were still qualifying abroad (mostly in South Africa). In 1970 there were 97 black graduates (92 from UR) and 362 whites (104 from UR). Comparable figures for 1971 were worse: 74 blacks (69 from UR) and 356 whites (80 from UR).

*Table VI: GRADUATES IN THE CIVIL SERVICE IN  
SEPTEMBER 1972*

<i>Ministry</i>	<i>Administrative Group</i>			<i>Profnl. &amp; Technical Grp.*</i>		
	<i>Posts</i>	<i>Graduates</i>	<i>Vacancies</i>	<i>Posts</i>	<i>Graduates</i>	<i>Vacancies</i>
Agriculture	142	—	—			
Commerce and Industry	105	29	9			
Defence	61	—	—	30	22	8
Education	250	3	3	(30)	14	—)†
Finance	166	7	2	255	33	33
Foreign Affairs	58	17	8			
Health	195	—	—			
Justice	20	1	—			
Information, immi- gration, tourism	8	—	—	18	2	—
Internal affairs	314	40	80	130	9	30
Labour and Social Welfare	115	—	4	57	18	13
Lands	109	2	3	164	38	4
Law and Order	68	16	6			
Mines	79	—	2	113	50	12
Office of President	5	—	—			
Prime Minister's Office	10	—	—			
Public Services Board	62	3	—			
Roads and road traffic	219	—	—	78	71	7
Transport and Power	36	—	—	219	16	—
Water Development	55	—	—	255	68	25
Local Government and Housing				71	56	19
<b>TOTAL</b>	<b>2,077</b>	<b>118</b>	<b>117</b>	<b>1,420</b>	<b>397</b>	<b>151</b>

\*Where vacancies occur in the tables, no information is given in the source.

†Community Development Training only.

Source: J.P. Danckwerts, *Graduate Manpower Survey 1971/3*, mimeo, 1973, Tables IX and XI.

Harris has pointed out the dependency of white employees on the public sector, and its potential importance as an employer of the more highly paid segment of the black labour force. Only a partial displacement of the white administrative groups could contribute significantly to the building of a black middle class. There are few signs that this process has developed to any extent yet, although it has begun. In 1969 37 per cent of whites were employed in the public sector, as against only 14 per cent of blacks (almost entirely in unskilled grades). Dixon<sup>15</sup> has pointed out that although the Public Services Act is non-racial in content less than 5 per cent of established posts, none being at the senior levels in any group, were held by blacks in 1974. 'Both Government and the Public Service staff have followed policies designed to restrict and even reduce the number of established posts held by Africans; though not necessarily for the same reasons. Thus qualified African primary school teachers working in Government schools are not members of the established public service, unlike their non-African colleagues in the same schools . . . but have been placed in the United African Teaching Service.' The Detailed Establishment Tables for 1975-76 now list these teachers as in established posts, but in a note points out that they may (along with other black teachers) be on Public Service or UATS conditions of service; the Annual Report of the Public Services Board excludes them from its list of established posts. Dixon believed that only about 300 of the established staff were black, having failed to identify more than 200 with certainty.

By 1978, there appeared to have been some improvement for blacks in the higher grades of the Public Services. According to Hawkins, 11 per cent of the 13,640 established posts are filled by blacks and 14 per cent of the 8,150 non-established posts (artisans, junior clerical workers and typists) are filled by blacks. Yet this figure still indicates a huge white dominance and there is still no evidence to show that Africans hold senior posts.<sup>16</sup>

There is thus no doubt that the whites dominate the skilled posts throughout the economy. It is also clear that there are a large number of vacancies for skilled jobs, which will have increased in recent months due to the large exodus of whites: in 1976 and 1977 some 31,000

15. A.J. Dixon, 'No room for complacency: the public service in Rhodesia', *The Rhodesian Journal of Economics*, Vol.8, No.3, September 1974, pp.117-134.

16. *The Financial Times*, 14 April, 1978.

whites emigrated and the net migration figure was -18,000. The longer the war goes on, the greater will be the number of vacancies for skilled jobs as more and more whites elect to leave the country.

### III. THE SUPPLY OF LABOUR AND THE AVAILABILITY OF SKILLS

There has been a continuing tendency by the authorities in Rhodesia to understate the supply of black labour in all its categories. We have already seen that even the very small number of black graduates find difficulty in obtaining employment; similarly, very few qualified school-leavers gain apprenticeships or other training, despite the shortage of skilled labour. The potential of blacks to fill these positions has generally been ignored or denied, and the traditional solution has been to resort to encouraging white immigration. But the tendency applies with equal force (and on a much greater scale) to the whole labour force. The 1962 Census estimated that there were 71,000 black male job-seekers. By the 1969 Census the authorities argued that there were only 26,000 'active job-seekers' amongst black males, but there were 605,000 adult males listed in the 'all other persons' category. There were well over a million adult females similarly categorised. Now nearly all these people would have been living in the TTLs, and a large proportion of them would have been occupied in peasant agriculture, making a subsistence living, valued at a small fraction of the very low wages earned by employed blacks. The authorities employ the concept of 'inactivity rate', estimated to be about 20-30 per cent for adult males by Myburgh and 47 per cent according to Dawson.<sup>17</sup> This is intended to imply that the people concerned opt to live and work in the TTLs ('economic activity') and therefore do not wish to 'actively seek employment'. Hence they cannot be said to be unemployed or even part of the labour supply. The concept of 'inactivity rate' has been trenchantly criticised by Hawkins who points out that the official unemployment rate stays at the same low level whether employment is increasing by 40,000 a year or declining, although about 100,000 potential job-seekers come on the market

17. C.A.L. Myburgh, 'Up-dated population trends in Rhodesia and some of the social and economic implications', *The Rhodesian Journal of Economics*, Vol.5, No.2, June 1971, pp.1-6. R. Dawson, 'Towards a better understanding of manpower supply in Rhodesia', *The Rhodesian Journal of Economics*, Vol.6, No.3, September 1972, pp.1-20.

each year.<sup>18</sup> Similarly, inactivity rates for women were put at very high levels in 1969, only to be followed by a doubling in female employment over the next six years: are we to infer that inactivity rates had changed suddenly and radically? Or were large numbers of women attracted into employment by opportunities becoming available which were previously denied? The inactivity rate is in fact a self-adjusting concept not clearly distinguishable from unemployment.

Far from there being a labour shortage and no unemployment, the actual situation is one in which the rural areas are becoming overcrowded and the fertility of their soils destroyed by increasing demands, as more and more people are marginalised. Even allowing for net migration of foreign blacks (82,000 between 1962 and 1976) the adult male labour force has increased by 50,000 a year in recent years, and the female labour force by 61,000. In contrast, since 1967 (when employment began to rise for the first time since 1960) the average increase in employment of blacks has been 24,000. And black employment in 1977 was down to the level of 1974, creating a backlog of 250,000 over that short period.

Even to keep pace with the increase in the male labour force alone, orthodox economic policies would require a sustained economic growth rate of 10 per cent per annum so as to provide the investment for the extra jobs at an investment proportion of 20 per cent of GDP. To take up the back-log of male and female unemployment and to increase the participation rate of women would require even more unrealistic growth rates. Clearly a different strategy is required.<sup>19</sup>

If we accept that supplies of unskilled and semi-skilled labour are inexhaustible as far as any foreseeable economic strategy is concerned, we may now turn to the supplies of skilled and higher-level trained and educated workers. Figure 1 shows the numbers of black and white children by school grade in Rhodesia in 1976, and this same structure pertains today. The figure dramatically shows the extreme drop-out rates that selective examinations are required to produce because of

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18. A.M. Hawkins, 'How Much African Unemployment?', *The Rhodesian Journal of Economics*, Vol.6, No.3, September 1972, pp.21-33 and 'African labour supplies in the Rhodesian economy', *The Rhodesian Journal of Economics*, Vol.10, No.2, June 1976, pp.103-115.

19. See From Rhodesia to Zimbabwe No.2, *The Land Question* by R. Riddell and sections IV and V below.



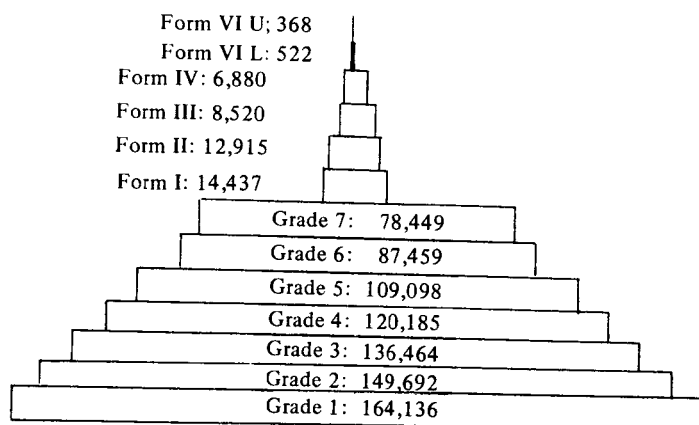
inadequate provision for secondary and higher education. In 1976, there were over 30 times as many black children in 1st year primary school as Europeans, but by the sixth form there were nearly six times more Europeans than Africans.

In 1977, there were 840,271 Africans at primary school, 44,342 at secondary school. In addition there were 862 Africans at the University out of a total enrolment of 1,621 students. 2,554 Africans were enrolled at teacher training colleges and 3,963 doing post-primary vocational and homecraft training or other further educational courses at recognised institutions. Table F in the appendix shows the national enrolment in institutes of further education.

There is no current data on the general standard of education reached by Africans in Rhodesia, but Table VII shows the levels of education reached by employment status for the last census. It can be observed that although 67,000 Africans who were no longer at school could be said to be skilled or semi-skilled in that they possessed at least some post-primary education, over 32,000 of these (48 per cent) were neither employed nor self-employed. Hence only about half of the skilled people were using their skills in the money economy where skills were said to be in short supply.

Figure 1 Enrolment Rates in School for Black and White Children, 1976

#### A. African Enrolment



## B. European Enrolment

Form VI U, Other	1,365
Form V, VIM, VIB,	4,570
Form IV	5,455
Form III	5,701
Form II	5,689
Form I	5,394
Standard 5	5,370
Standard 4	5,072
Standard 3	5,128
Standard 2	5,162
Standard 1:	5,240
Infants 2	5,251
Infants 1	5,671

Source: *Monthly Digest of Statistics*, January 1978, Table 4.

Note: 215,530 African children were born in 1968. Only 76 per cent of these were enrolled in Grade 1 in 1976 at the age of seven.

Table VII: EMPLOYMENT STATUS OF AFRICANS BY EDUCATIONAL STANDARD, 1969 CENSUS

Educational Standard	Self-Employed (except farmers)		Employees		All others*		Total	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Never attended school	4,440	23	280,950	36	999,970	48	1,285,360	45
Primary: grade I-III	2,390	13	87,940	11	276,250	13	366,580	13
Primary: grade IV-VII	10,740	58	333,950	44	697,652	33	1,042,342	36
Secondary: form I-II	460	2	20,950	3	27,076	1	48,486	2
Secondary: form III-IV	100	—	5,270	1	4,108	—	9,478	—
Secondary: form V-VI	—	—	430	—	568	—	998	—
Teacher training	220	1	6,750	1	346	—	7,316	—
Not stated	570	3	29,710	3	84,480	4	114,760	4
TOTAL	18,920	100	765,950	100	2,090,450	100	2,875,320	100

Source: *Census of Population, 1969*, Tables 8, 25 and 29. *Monthly Digest of Statistics*, January 1978, Table 4.

\*The following have been excluded from 'All Others': all children at school and teacher training, all people under school age and all 'retired' people defined as men over 65 and women over 60.

Education statistics give a good indication of the numbers of skilled school-leavers joining the workforce. Table G in the Appendix shows the qualifications of school leavers according to school grade. Taking Form III (Grade 10) schooling as the minimum necessary to be considered in any way skilled (although of course further apprenticeship training or other vocational training would also be necessary to become formally skilled), we may make an estimate of the number of minimally skilled people becoming available in the periods 1961-69 and 1970-77. These are given in Table 8. The estimate is rough and must be taken to be a maximum, for no account is taken of deaths, either during or after schooling, or emigration, or of failure to pursue further training. But it is sufficient to show that *no more than* 47,000 skilled people, so defined, could have been added to the work-force between 1961 and 1969 from the schools and colleges of Rhodesia. These figures do not include those pupils leaving school below Form III and entering teacher training colleges. In general today, the qualifications needed for potential primary school teachers are higher than in the past where former Form II students could train as upper primary school teachers. Between 1965 and 1976, 9,003 Africans qualified as primary school teachers.<sup>20</sup>

*Table VIII: MAXIMUM POSSIBLE ADDITIONS OF SKILLED PEOPLE TO THE WORK FORCE FROM SCHOOLS*

	1961-1969	1970-1977
Blacks	7,676	32,298
Whites	39,224	43,059
TOTAL	46,900	75,357

Data from Table G. School leavers with three or more years of secondary schooling.

As net immigration of whites was about zero over the period 1961-69, and few adults would have obtained skills formally, it is clear that the additional skills supplied fell a long way short of the 96,000 to 107,000 thought to be required by the 1964 High Level Manpower survey. The expansion of black secondary education gained pace after

20. The Whitsun Foundation, *A Programme for National Development, Data Bank: Education and Training*, Salisbury, May 1977, Table 36.

1970 and the next period shows a maximum addition of skilled workers of about 76,000. These figures, together with those in Table 7, nevertheless show clearly that an enormous amount of black talent is being wasted: in 1977, 7,840 black children left school after completing Grade 10 or better, but about 64,000 left after completing primary school (in 1975, 1,376 primary schools, or 42 per cent of the total did not even offer the Grade 7 examination, a pass in which is necessary, though not sufficient, to go on to a secondary school). Even the latter were luckier than average in that over 140,000 had started in Grade 1 in 1970, and about a half had dropped out earlier.

In all, some 170,000 black pupils left school in 1977 (see Table G), of them, about 8,000 or under 5 per cent left with reasonable qualifications (Form III or above), very many more were obliged to leave school unwillingly because of the draconian competition for places at higher levels. What use did Rhodesia make of this valuable 5 per cent?

Only 154 on average gained apprenticeships each year from 1974-1976 and the figure for 1977, not yet available, is unlikely to be much higher. This represents negligible opportunities for young black people as a whole. There were some 800-900 entrants into teacher training, bringing the total under training (in three-year courses) up to 2,554, and a few hundred each going into post-primary vocational training courses, homecraft training schools, and higher education. Chibero Agricultural College took about 30 blacks (bringing the total to 80) and it is reported that at most about a third of the 3,852 enrolments at Bulawayo Technical College and Salisbury Polytechnic were black. This suggests that about 400-500 blacks would have entered in 1977. Not more than 100 Africans were accepted for high-level nursing training. For the University, the figures are known: of the 1,617 full-time students in 1977, 862 were black (there were also 136 out of 513 part-time students), and of 730 entrants, 411 were black.<sup>21</sup> In all about 2,000 of the 1977 school-leavers appear to have obtained some formal training, further or higher education.

21. This pattern of black dominance has developed in recent years largely as a result of heavy funding by the British Ministry of Overseas Development. In 1976 the UK Government provided 192 grants at the University and, in 1977, 318 grants. The British programme is administered by the World University Service (WUS) and, including funds from other organisations, such as Swedish, Danish and Canadian development agencies, WUS were supporting 45 per cent of the full-time undergraduates in 1977. WUS, *Annual Report 1977*, London, 1978.

In a study of black school-leavers in 1971, from form IV upwards, it was found that 50.2 per cent of the sample was still unemployed six months after leaving school (see Table IX). In fact, after eliminating those still in school, for the author assumed that students left and then re-enrolled, and those who did not reply, the figure rises to 81 per cent.<sup>22</sup>

**Table IX: STATUS OF 1971 BLACK SCHOOL LEAVERS  
AFTER SIX MONTHS (percentages)**

	<i>Form IV</i>		<i>Form VI</i>		<i>Total</i>
	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	
Employed	12.9	8.0	9.7	15.8	11.6
In School	23.8	22.7	56.5	42.1	25.6
Unemployed	50.9	58.2	15.6	10.5	50.2
No response	12.4	11.2	18.2	31.6	12.6
Number in sample	1,793	591	154	19	2,557

*Source:* M.W. Murphree, ed., *Education, Race and Employment in Rhodesia*, Salisbury, Artca, 1975, Table 8:1.

Success in finding employment was lower for girls than for boys. Even for those pupils who obtained Division 1 passes at O-level, only half the boys and 43.5 per cent of the girls were able to continue their education, and only 17 per cent of the boys and 14 per cent of the girls who left were employed 6 months later. These figures confirm the overall picture of wastage shown in Table VII.

Aside from the injustice to the individuals concerned, the gross inefficiency of the overall system from an economic point of view is clear. It is further highlighted by the reminder that these highly educated and qualified people are unemployed in a society that is seriously short of skilled labour. ACCOR talked about businesses being 'dangerously short of professional men and skilled technical personnel' in 1974, and recommended that they should train such educated people for responsible jobs regardless of their race. Many businesses have refused to consider Africans on grounds of 'unsuitable background' even though examination results show that black pupils compare favourably with

22. Murphree (1975), p.149 and following.

their white counterparts.<sup>23</sup> At O-level a lower proportion of black children fail, although fewer gain distinctions in science subjects; at A-level the relatively few black pupils who get this far do considerably better than their white counterparts in all subjects except Latin.

In summary then, we may say that Zimbabwe has a large reservoir of semi-educated people who could have been trained for responsible work, but by and large have not been. Between 1961 and 1969 almost 8,000 children left school with secondary form III or better, and a further 207,000 completed primary schooling or left after one or two years in secondary school. The comparable figures for 1970-77 are over 32,000 and almost 400,000 respectively. If the pattern observed in the 1969 Census still obtains, only about half the most educated and a third of the others will have entered the 'economically active' section of the population (see Table VII). Although very few of those who found employment would have obtained any *formal* training beyond their school qualification, we can nevertheless expect that many more will have become highly skilled on the job, even though usually regarded merely as 'assistants'. The prospects for Zimbabwe given this large, but hidden, reservoir of skills, must be judged therefore to be much less problematic than appears at first sight, and much more favourable than the prospects faced by many newly independent countries.

The above analysis, however, tells us very little about the highest level skills: managerial, scientific and professional. In this category, we must initially look abroad for many of the skills needed to replace emigrating whites. But not abroad for expatriates necessarily, for there is at present a very large number of Zimbabweans studying abroad, either for A-levels or in higher education. There are also many such people who have completed their courses, but remain in exile. Estimates of the numbers of such people are hard to obtain, but there appear to be at least 4,500 scattered throughout the world, in Britain, the USSR, Western and Eastern Europe, many African Countries, and as far away as Cuba and New Zealand. In Britain the Commonwealth Secretariat has recently surveyed Zimbabwean students living here, but its analysis of skills remains confidential. However, there is no doubt that there are many hundreds of qualified scientists, social scientists, technicians and nurses who could fill many government and industrial posts listed in Tables C and E.

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23. Murphree (1975) p.137.

#### IV. BASIC NEEDS AND THE LABOUR FORCE

Rhodesia employs a workforce of just over one million people out of a population approaching seven million. About two million adults are not in formal employment and are either left to depend entirely on the rural economy in the Tribal Areas and Purchase Areas, or else on those in employment. Of the employed, some 15 per cent may be said to be 'skilled and educated', at least two-thirds of them white, while the education statistics suggest that the group which is fairly well educated but unemployed is comparable in numbers to the group which is employed (Table VII). Most of the people officially regarded as 'economically inactive' might in fact become employed, many of them no doubt in commercial or co-operative rural enterprises, were opportunities to arise. The economic demand generated by the economy has failed to meet the supply either of unskilled or skilled blacks who are marginalised into labour reserves in the TTLs.

Not only these statistics but also those of earnings in relation to family poverty datum lines, health and doctors per thousand of the population, and education all indicate that the needs of black people in Rhodesia are not being met in an economy advanced enough to give the whites one of the highest living standards in the world. In some areas (such as rural incomes, and enrolments in Grade 1 of primary school) the position has been worsening at the same time as orthodox measures of economic growth rate such as real GNP have been reaching double figures, among the fastest in the world. It is for such reasons that the ILO and the UN have moved to advocacy of the 'Basic Needs Approach' (BNA) to development, to replace crude growth-rate targets or even employment maximization aims. This approach has been discussed in the first pamphlet in this series; the emphasis here will be on the employment aspects. Professor Green has grouped basic human needs into five clusters:<sup>24</sup>

- a. personal consumer goods — food, clothing, housing, basic furnishing;
- b. universal access to services — e.g. primary and adult education, pure water, preventative and simple curative medicine, habitat

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24. R.H. Green, 'Basic human needs, collective self-reliance and development strategy' in World Council of Churches, *Self-Reliance and Solidarity in the Quest for International Justice*, Ecumenical Institute Bossey, Switzerland, 1976, pp.16-36.

- (environmental sanitation, urban and rural community infrastructure, communications);
- c. the physical, human and technological infrastructure and the capacity to produce the capital and intermediate goods necessary to provide the consumer goods and services;
  - d. productive employment both yielding high enough output and equitable remuneration so that individuals, families and communal units earn (and produce for their own use) enough to have effective access to consumer goods;
  - e. mass participation in decision taking and review and in strategy formulation and control of leaders as well as in implementation of projects and carrying out of decisions.

The ILO set a target date of the year 2000 for all poor countries to achieve the above aims. In common with most 'Third World' countries Rhodesia meets needs in none of the five clusters; its case is however more reprehensible in that natural endowments and inflows of capital and trained people have produced a situation in which the needs listed in cluster *c* are apparently almost met. But the infrastructure is concentrated on meeting the needs in the other four clusters of the white population to the neglect of most of the blacks.

Let us take the five clusters in reverse order. Clearly blacks in Rhodesia are formally and actually excluded from participation in decision taking at all levels of society: not just political decisions, but economic strategy, rural development (including communications and irrigation), industrial strategy at both the managerial and also to a large extent at the trade union level, as well as in social matters such as where they can live and seek work. As we shall see in the final section, many of these forms of participation are likely to remain denied to blacks in a type of settlement which yields them political power but which leaves economic power in white hands (or in the hands of foreign capital as in Zaire or Kenya). This is why it is important to emphasise that this cluster is an *integral* part of basic needs, not an optional extra or a postponable luxury.

Moving on to the basic needs in cluster *d*, expansion of employment in Rhodesia has been viewed as both an opportunity and a problem: an opportunity to use more labour to expand output of the mines and factories and so increase GNP to the benefit (mainly) of the whites; and



a problem of 'what to do' with 100,000 and more new job-seekers every year. If economic criteria restrict the opportunity, the problem has tended to be 'solved' by returning the workers to the TTLs. Focusing instead on the need to provide employment would involve different economic criteria.

The solution to the employment problem appropriate to a situation in which capital and machinery are scarce, points to the need to consider (i) more labour-intensive techniques; associated with this (ii) more 'learning by doing' whether in formal apprenticeship, or in apparent overmanning, initially, for educational reasons; (iii) wider use of intermediate or appropriate technology, both in agriculture and industry, and the purchase of second-hand plant; associated with this (iv) a larger service sector concerned with repair and maintenance of equipment, on a more decentralised basis than at present (this would also improve the distribution of employment); (v) more efficient use of existing capital and land.

A number of policies can be suggested at once.<sup>25</sup> First, investment and depreciation allowances on machinery should be reduced or abolished, and tariffs should not discriminate in favour of capital goods imports as against items complementary to labour or labour-intensive production, because present policies amount to an 'implied tax' on labour. Second, there is very little shift work in Rhodesia, so that scarce capital assets stand idle for two-thirds to three-quarters of the time: extra employment, albeit at unsocial hours, could be achieved at very little capital cost, although infrastructural investment would be needed. Third, there is the whole question of land reform, discussed in the second pamphlet in this series: much productive employment could be created by marrying together underemployed (or unemployed) people in the TTLs with underutilised land in the 'European' sector, and the capital cost could be spread through co-operative ownership of tractors and other machinery. Finally, we may mention the employment-creating effects of equalising the present income distribution, so that there is a larger economic demand for more basic goods which are usually of higher labour, and lower import content than luxuries. There is also the possibility of a public works programme, which has been tried with some success, for example, in Morocco.

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25. For a more detailed discussion see D.G. Clarke, *Unemployment and Economic Structure*, Gwelo, 1977.

Passing now to the third cluster of basic needs, broadly infrastructural, in which Rhodesia is least deficient, we are faced with two main considerations. First some types of infrastructural investment are very labour-intensive (for example road-building), whereas others are not merely capital-intensive, but have a very high import-content for a poor country (for example steel, fertiliser, machine tool and power industries). Second, Rhodesia has the most-developed and balanced infrastructure of any African country except South Africa, but one which has been developed to meet the needs of a small minority, not the whole population. It is difficult to consider briefly how easily this might be adapted to the needs of Zimbabwe.

What might well be considered, however, is a national public works programme, the details of which would have to take account of the following: overall social aims (especially a reduction of inequality); the adaptability of existing infrastructure to these aims, and the availability of foreign exchange for expansion (most obviously this may be required in steel, cement, fertilisers and power); the employment-creating and income-producing effects of particular labour-intensive projects, including road-building, digging of irrigation canals, building of small dams, and improvement of sanitation through water supply and sewerage. Related to this might be co-ordinated plans designed to prevent land erosion, and to restore the fertility of degraded land. Although the overall labour supply for such projects could almost certainly be made available, there would be more difficult problems associated with finding the necessary skilled labour component (many of the educated but unemployed rural people probably lack practical skills) and finance for wages. Increased external debt and inflation would be a constraint on such a programme.

Education and health, the central basic needs of cluster *b*, present different problems. Government expenditure on African education came to about \$34m in 1975-76 as compared with a total of about \$35m for whites. There were about 870,000 black pupils and 66,000 whites, so per capita expenditures were \$39 and \$530 respectively. Only about 75 per cent of the age group are actually enrolled in black primary education; on the other hand the money values just given exclude expenditure at African Community level. This means that although the average expenditure per black child may not be very different from \$39, it will be somewhat higher for those actually in school. The low salaries of most black primary school teachers, how-

ever, means that the pupil:teacher ratios do not differ so drastically: they appear to be about 40:1 in primary schools and 20:1 in secondary schools as compared with 25.1 and 19.1 respectively in white schools. In relation to the resources available to a relatively poor country, it would seem therefore that primary education is the need in which blacks are most deficient: redistribution of resources from the privileged white sector would be enough to ensure that every child had a full primary education. In the basic needs approach this is rightly seen as the first priority: about a third more children would receive some teaching and almost double the present number would receive teaching in the higher grades (see the drop-out rates indicated in figure 1). Secondary and university education is of much lower importance initially, although it should be a medium-term aim to give all children two years of secondary education. So far as teachers are concerned, the raw data suggest that a doubling of numbers would be necessary to give all children primary education with some reduction in the pupil:teacher ratio. However, teacher-training programmes might well have to be expanded even more rapidly, for there can be no doubt that a high proportion of teachers, especially the better qualified ones are only in this profession because almost all other jobs commensurate with their qualifications are at present closed to them. Not only will many of them wish to leave teaching, but they will also be required to replace whites leaving other professions and government and administrative positions. As against this returning students, refugees and soldiers will no doubt provide a number of recruits to the teaching profession.

The other aspect of education which concerns basic needs is adult education. According to the 1969 Census, 72 per cent of the adult population had either never been to school or had received only three years, or less, of primary schooling. This figure indicates approximately the degree of adult illiteracy in the country among the black population. To this needs to be added the large numbers of children since 1969 who have either never attended school or who have had to drop out in the early years.

Aside from basic literacy and numeracy classes there will clearly be a need for political and social instruction if such people are to meaningfully participate in the new society. And for people who have spent the last decade or two in the TTLs there will almost certainly be an additional need for practical instruction in a range of skills if they are to work on a co-operative basis. Needed skills will cover the range at

present dealt with on a quite inadequate scale by the Branch of Community Development and Training: in 1975 it conducted courses (or provided facilities for them) in a range from leadership training through conservation education to welding for farmers. But attendance was under 27,000. By contrast in Tanzania enrolment in adult education courses rose from about 100,000 in 1966 to over 3 million in 1975.

We have already seen that medical provision is extremely unequal in Rhodesia: in 1971 there was one doctor per 685 whites as against one per 17,000 blacks; in the rural areas the ratio was one per 45,500 people. To achieve a ratio of 1:1,000 would require about 7,000 doctors, a quite unrealistic target for the near future for a country with only some 700 doctors at present. However this is the ratio that a not much richer country, Cuba, has attained. But in addition in Rhodesia there are a number of nurses, medical assistants and nursing and maternity assistants totalling almost 12,980 in 1976. It is likely that a majority of these cater for the whites, but there is a nucleus of a paramedical force which could be built on. An orthodox approach would suggest that basic needs would require the training of some thousand to 1,500 doctors (to bring the ratio to about 3,500 to 1) and 10,000 paramedicals. However, the example of the Chinese 'barefoot' doctor movement suggests that a greater concentration on paramedicals should meet basic needs more directly, especially if coupled with education and investment in adequate water supply and sanitation. As Ivan Illich writes: 'The achievements in the Chinese health sector during the late sixties have proved, perhaps definitively, a long-debated point: that almost all demonstrably effective technical devices can be taken over within months and used competently by millions of ordinary people.'<sup>26</sup> Chinese advice might then be sought as to whether a few hundred doctors and a few thousand assistants would provide a sufficient nucleus to establish such a barefoot doctor scheme in Zimbabwe.

Finally we come to consumer goods needs listed in cluster *a*. As about 80 per cent of employees receive a wage below the urban family Poverty Datum Line, it is clear that few blacks at present are finding their needs for food, clothing, furniture and housing met adequately. Most of the remedies have been referred to above: income redistribution so that money is available to create economic demand for such necessities rather than luxuries (and thereby employment in agriculture

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26. I. Illich, *Limits To Medicine*, Calder and Boyars, 1976, p.59.

and food-processing, clothing and furniture industries and construction); land redistribution; shift work; intermediate technology and more labour-intensive production techniques.

## V. THREE SCENARIOS

In the last section we looked at a number of components of a strategy which would offer some hope of fulfilling the UN target of meeting basic needs in Zimbabwe by the year 2000. We now need to look at the likely political dimensions to the birth of Zimbabwe, so as to inquire whether such a strategy may be consistent with the political power in the country. I propose to consider three points on a spectrum of possible political outcomes, not suggesting that any one of them is most likely — for some intermediate positions may well be more probable — but rather to illustrate the main factors that would be involved. I shall also concentrate on the effects on employment.

The first scenario supposes the political success of the 'internal settlement', the second its replacement by an 'Anglo-American' settlement, and the third a military victory by the liberation forces. If the present 'internal settlement' survives in the face of continuing war and sanctions, and achieves no immediate international recognition, it is clear that basic inequalities in Zimbabwe will be little affected. Some whites will leave on the advent of apparent black political power, but probably less than 10 per cent.

Up to 10,000 jobs, many of them requiring skills thus become available to blacks, assuming, probably rather unrealistically, that the economic depression does not deepen. But economic power remains firmly in the hands of the whites, with the prospect of only a very gradual shift in favour of blacks.<sup>27</sup> Some enter government service and also some of the professions, as the more blatant exclusion devices are challenged, and the proportion of black apprentices also increases. But the terms governing employment do not change very much: that is although racial discrimination is nominally abolished, it is frequently found that only white applicants for vacancies are 'suitable'. Some bridgeheads are established because of the shortage of whites, so that

27. For an analysis of the internal settlement proposals and their implications see *Comment No.34, Rhodesia's Internal Settlement*, Catholic Institute for International Relations, London, April 1978.

a growing minority of blacks employed in skilled and responsible positions develops.

However, just as few blacks actually purchase white farms as a result of the repeal of the Land Tenure Act, for the simple economic reasons that they have no money to do so, so relatively few blacks move into the better jobs, because so few get secondary schooling or further training. To prevent the whites leaving the country there is no effective challenge either to their privileged and separate education system, nor to their inflated wage levels. But a small black bourgeoisie, already sending its children to fee-paying multiracial schools, rapidly gains an interest in the new status quo as it both gains white salary levels and enters positions of power in the armed forces and police.

A simple calculation can give a rough idea of the prospective extent of this black bourgeoisie and labour aristocracy. In 1975, a not untypical year, 934,000 blacks were employed and earned a total of \$433.1m (\$464 on average), whilst gross operating profits were \$701.1m. Assuming \$100m for taxation and \$400m for gross domestic investment, at most \$200m excess profits might have been paid to blacks and might be used in the future to 'buy' support. This sum could raise the average wage to \$678 (still only 13 per cent of the average white salary of \$5083 in 1975). Alternatively it could pay about 125,000 blacks the average white salary leaving the rest unemployed. Or, most realistically, it could pay 43,000 blacks at average white rates leaving the rest at present rates. We see then that only a tiny proportion of blacks could benefit materially in this scenario.

An 'Anglo-American' settlement would differ in that there would be immediate international recognition, an end to sanctions, and large scale investment both from the proposed Zimbabwe Development Fund and private foreign investment inflows. Assuming that broad strategy follows the lines advocated by the Whitsun Foundation,<sup>28</sup> there would be a doubling of investment in the TTLs from some 3 per cent to 6 per cent of total investment, although an orthodox economic strategy would dictate that first priority would remain with the industrial sector. Whitsun estimates that to 'create one job' in the wages sector costs on average an investment of \$8,000 (parallel calculations

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28. Whitsun Foundation, *An Appraisal of Rhodesia's Present and Future Development Needs*, Whitsun Publications, No.03, Salisbury, 1976.

by the Southern Africa Task Force in America would suggest \$10,000),<sup>29</sup> so that to create 60,000 jobs per year would cost \$480,000, or 24 per cent of GDP in 1975, well above the average ratio since UDI, and not quite reached in the most favourable year of 1975. The average rise in employment over the last ten years was under 30,000 a year, despite real growth rate in GDP being about 6 per cent. It is just conceivable that with massive inflows of foreign capital and postponement of debt repayment, Zimbabwe might achieve growth rate of 10-12 per cent for two or three years and the necessary investment to create 60,000 jobs a year. But this is still only about a half of the expansion of the labour supply and it ignores the backlog of unemployed persons, so that the TTLs will continue to be obliged to 'absorb' further large numbers of people. It is inconceivable that the relatively small investment proposed in the TTLs (large only in relation to past neglect) could cope with the serious problem arising from past treatment as a reservoir for unneeded workers, let alone the new job-seekers as well.

As the previous calculation shows, the employed black workers could not as a whole greatly improve their economic position. But undoubtedly a greater proportion could rise to near parity with the whites. Nevertheless, a substantially greater black bourgeoisie with an interest in such a settlement could be created under the more favourable economic circumstances that would obtain with an internationally acceptable settlement, including the initial effects of the ZDF. Further, it is likely that rather more whites would leave, probably between 10 and 25 per cent (although the Whitsun Foundation believes that even a 10 per cent departure would be catastrophic), leaving more good jobs for better qualified blacks. So such a settlement, favoured by the United States and Britain, for the protection both of their political and strategic interests in Africa as a whole and their economic interests in Zimbabwe itself, could obtain the support of a significant black minority. However, much of the economic thinking which underpins the plan has been rejected uncompromisingly by both leaders of the Patriotic Front, who call for 'the democratisation not only of the vote but of all *institutions* and the way of life in Zimbabwe'. They see that the analysis of both American strategists and the Whitsun Foundation concludes that Rhodesia's basic economic structure is sound, but superficially distorted by racial discrimination, which merely needs removing.

29. Southern Africa Task Force, *Transition in Southern Africa: Zimbabwe*, Office of Southern and Eastern African Affairs, Africa Bureau, USAID, Washington, February 1977.

The Patriotic Front realises that the economic structure is gravely distorted by some of the widest inequalities of income and wealth and power in the world. The whole economy is geared to satisfying luxury needs of a small minority, both in terms of the nature of jobs (many domestic servants, child, foreign and casual labour on farms, and so forth) and the nature of output. About 65 per cent of the people live in the TTLs, and are excluded from full participation in the money economy without any prospect of a viable alternative. Allowing some blacks to participate in this system of extreme exploitation merely stabilises it to the detriment of the large majority of the people. The Anglo-American proposals, as presently constituted, contain no provisions for reducing inequality, and can therefore do very little towards meeting basic needs. Both clusters *a* and *b* (on page 29) and indirectly *c* could only be realised with significant redistribution of income and wealth (especially land). As for *d*, only wishful thinking is offered so far as employment prospects of *only half* the prospective job-seekers is concerned; and the land proposals, both for the TTLs and the European areas, are much too timid to have any significant effect. Participation would plainly be limited to choosing between leaders committed to or bound by the overall strategy, and would not extend to 'mass participation in decision taking and review and in strategy formulation and control of leaders'.

So reformist settlements which seek to integrate a minority of blacks into a white structure of exploitation cannot meet even the basic needs of the Zimbabwean people as a whole. The authors of the Anglo-American proposals see the participation of the Patriotic Front in a settlement of the Rhodesian conflict as essential, but primarily as a means of safeguarding Western investments, trade and geopolitical interests in the wider area. This is its priority — not the meeting of basic needs within Zimbabwe.

In Rhodesia, the option for radical change has implied fighting rather than a 'peaceful solution'. But as Professor Green writes:<sup>30</sup>

It is necessary to underline that in talking of self-reliance in terms of basic human needs one is talking of basic structural changes not marginal tinkering and of revolution (whether violent or otherwise) not of "reformism". Very major changes are needed in a relatively short period if the process is to be sustained not encapsulated, co-opted or reversed:

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30. Green (1976), pp.25-26.



- a. in ownership, in productivity and therefore in levels and distribution of income;
- b. in income levels and distribution and therefore in levels and make up of effective demand (whether expressed in controlled market or non-market terms);
- c. in demand and therefore in production;
- d. in production and therefore in requirements and possibilities for trained manpower, knowledge, technology and both internal and external exchange;
- e. in access to decision taking and therefore both in the form and substance of decision taking and decisions taken.

We have space only to consider two points prompted by the above. First there must be no question of allowing the present income differentials to persist, as they have done in, for example, Kenya. As whites leave they must take their inflated salary scales with them; if they stay their salary scales must be trimmed inside a decade at most. Even *inside* the black population differentials are already too wide, with some teachers earning \$4,000 a year and average agricultural wages at \$200 a year, to say nothing of rural per capita incomes at about \$50. Zimbabwe's educated elite must focus its aspirations and satisfactions on aiding the communal good, not individual consumption in the manner of white Rhodesians.

Secondly, the fundamental changes in economic structure and consequent employment must proceed from a recognition that white expertise and foreign capital are so dominant that their powers for initial sabotage cannot be ignored. The maintenance of production levels, especially of food from the 2,000 efficient European farms (the other 4,000 have to be subsidised), and of metal ores for export is critical if the revolution is not to risk falling into chaos. In the second pamphlet in this series Roger Riddell has sketched a strategy for land reform to avoid this risk. Here we may conclude by considering the treatment of foreign-owned industry.

Financial inducements must be given to secure co-operation in the transition period so as to maintain production levels, and parallel with the suggestions for farms we may propose that compensation for eventual nationalisation (after four or five years) be related to the extent to which production levels are maintained or increased, Zimbabweans are trained to take over, and co-operative organisation is promoted. This compensation should not be regarded as a right, but rather as one of the initial costs of the desired revolution. As with farms, a number of industries have been kept going purely in their white owners' in-

terests by subsidies. Many of these might be taken over at once and converted into co-operatives producing for wider needs.

The restructuring of industry and the economy must from the start aim to avoid the creation of new elites, by recognising that neither whites, nor black replacements, nor employees in industry as a whole can operate outside a strategy designed to promote wider interests. Otherwise the workers in, say, a perfectly democratic, egalitarian shoe-factory could all be highly privileged compared with their cousins in the country. There must be a drive to greatly increase employment and to integrate the urban and rural economies.

Plainly the present study constitutes no more than a tentative first step. More detailed studies need to be made with a self-reliant basic needs strategy clearly in mind. These would have to establish in more detail: the need for skills in the short-term; the existing pool of skills, both internally and externally; the need for particular skills in the transition period and the structure of skills needed for the long run strategy.

## CONCLUSION

We have seen that Zimbabwe will inherit an economy which has made use of some 150,000 formally skilled workers and a considerable number of others with informal skills. But this economy has been very largely designed to satisfy not the basic needs of a population of seven million people, but the luxury requirements of a quarter of a million, and foreign demands for primary commodities. And about two-thirds of the most skilled workers are whites who may leave the country. Nevertheless Zimbabwe will have a far bigger proportion of people with a wider range of skills than almost any colony on achieving independence (except possibly India). This fact presents both an opportunity and a danger.

The danger lies in the possibility that some fundamental characteristics of the white economy, in particular the extreme inequality in wealth, income, land distribution and decision-making, will survive, with the skilled and educated blacks stepping into white shoes. The continuity seen as vital to avoid economic disruption by both the Whitsun Foundation internally, and apparently the authors of the Anglo-American settlement plan externally, would also imply that a

powerful black middle class would rapidly develop, with interests directly at variance with the majority of the people. This class would support growing integration with and subordination to the world capitalist economy in exchange for external support.

But there is no reason to believe that a majority of Zimbabwe's skilled and educated people would wish to follow such a course. And the existence of a significant body of such people points to the opportunity of following a path to a self-reliant economy for Zimbabwe, which would be able to meet the basic needs of all its people in a decade or so. There is the nucleus for a uniquely dynamic society which could release the skills and energies of the whole population, and provide an inspiration for Africa and the wider world.

## Appendix

**Table A: OCCUPATION BY SEX OF SELF-EMPLOYED BLACKS\*  
AND EMPLOYEES OF BLACK BUSINESSMEN IN 1969**

<i>Occupation</i>	<i>Self-employed persons</i>			<i>Employees of black businessmen</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Professional, technical and related workers	710	90	800	50	40	90
Administrative and managerial workers	1030	40	1070	180	30	210
Clerical and protective workers	40	—	40	480	80	560
Sales workers	2850	1000	3850	1730	1330	3060
Service workers	270	320	590	930	1330	2260
Agricultural and forestry workers	650	40	690	1510	780	2290
Production workers and transport equipment operators etc.	9340	920	10260	6770	530	7300
Others not classifiable	1090	530	1620	890	250	1140
<b>TOTAL</b>	<b>15980</b>	<b>2940</b>	<b>18920</b>	<b>12540</b>	<b>4370</b>	<b>16910</b>

\*Excluding farmers

Source: *Census of Population, 1969*, Table 76. This gives a further breakdown in the following categories:

*Professional, technical and related workers*: artists; nurses and midwives; religious workers; herbalists, dentists and related workers; teachers; other.

*Administrative and managerial workers*: managers; businessmen; other.

*Clerical and protective workers*: transport conductors; other.

*Sales workers*: working proprietors, managers and assistants; street vendors; other.

*Service workers*: working proprietors and managers (catering and lodging services); housekeeping service workers; cooks, waiters, bartenders and related workers; hairdressers, barbers, beauticians and related workers; other.

*Agricultural and forestry workers*: contract workers in agriculture; fishermen; other.

*Production workers etc.*: miners, quarrymen, well drillers and related workers; spinners, weavers, knitters, dyers, and related workers; food and beverage processors; tailors, dressmakers, sewers, upholsterers and related workers; shoemakers, shoe repairers and leather goods makers; cabinetmakers and related

woodworkers; blacksmiths; plumbers, welders and other metal workers; glass formers, potters and related workers; painters; builders and construction workers; transport equipment operators; bicycle repairmen; other machinery mechanics; watch and clock repairmen; labourers; other.

About half the self-employed production workers were in building and construction. Most of the employees were accounted for by tailoring, etc., building and labourers.

**Table B: APPRENTICESHIP CONTRACTS COMPLETED 1972-1976  
AND DUE TO BE COMPLETED 1977-1981**

*As at 31 December 1976*

<i>Industry</i>	<i>1972</i>	<i>1973</i>	<i>1974</i>	<i>1975</i>	<i>1976</i>	<i>1977</i>	<i>1978</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>	<i>Total in training</i>
Aircraft	9	14	11	21	63	52	33	30	59	73	247
Building	23	31	36	66	35	43	84	82	52	23	284
Electrical	54	65	46	96	71	108	114	138	184	138	682
Hairdressing	35	49	26	38	22	28	18	25	28	—	99
Mechanical											
Engineering	140	134	141	172	189	240	230	326	398	306	1500
Motor	56	86	41	179	149	205	98	190	197	17	707
Printing	33	27	30	32	27	33	44	44	57	44	222
<b>TOTAL</b>	<b>350</b>	<b>406</b>	<b>331</b>	<b>604</b>	<b>556</b>	<b>709</b>	<b>621</b>	<b>835</b>	<b>975</b>	<b>601</b>	<b>3741</b>

*Source: Annual Report of the Apprenticeship Training and Skilled Manpower Development Authority, 1973, Appendix 5; 1974, Appendix 4; 1976, Appendix 4.*

**Table C: AVERAGE NUMBER OF APPRENTICES AND  
JOURNEYMEN IN 1976**

<i>Industry and trade</i>	<i>No. of apprentices</i>	<i>No. of journeymen</i>
<b>Aircraft Industry</b>		
Working directors-supervisors	—	17
Aircraft electricians	31	20
Aircraft fitters	36	121
Aircraft instrument fitters	26	23
Aircraft materials processors and electroplaters	—	9
Aircraft radio and telecommunications technicians	30	20
Aircraft stressed skin workers	7	19
Aircraft trimmers	—	4
Aircraft welders and metal workers	5	6
Airframe fitters	41	33

Fitter/machinists (aircraft)	4	23
Power-plant and engine fitters	61	39
Aircraft painters/signwriters	—	1
Avionics technicians	6	12

<b>TOTAL</b>	<b>247</b>	<b>347</b>
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#### **Building Industry**

Working directors-supervisors	—	343
Bricklayers	84	1099
Carpenters/joiners	81	996
Plumber/drain-layers	62	342
Painter/decorators	21	492
Plasterers	3	222
Stone-masons	1	*
Wood-machinists	5	42
Shop-fitters	21	46
Mastic asphalters	—	*
Terrazzo and mosaic wall and floor tilers	1	*
Architectural metal-workers	—	*
Glazers	5	—
Floor-layers	—	3

<b>TOTAL</b>	<b>284</b>	<b>3585</b>
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#### **Electrical Engineering Industry**

Working directors-supervisors	—	156
Electricians	470	1321
Electrician/electrical fitters	62	13
Mechanical fitters	24	39
Instrument mechanics	16	53
Lift mechanics	8	22
Electrician/cable jointers	4	26
Electrical technicians	10	54
Signal technicians	57	97
Domestic appliance electricians	2	42
Electrician/armature winders	10	35
Instrumentation and control technicians	19	14

<b>TOTAL</b>	<b>682</b>	<b>1872</b>
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#### **Motor Industry**

Working directors-supervisors	—	457
Motor mechanics	549	1512
Auto-electricians	71	122
Panel-beaters	46	163

Precision machinists	36	72
Motor-cycle mechanics	5	17

<b>TOTAL</b>	<b>707</b>	<b>2343</b>
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#### **Hairdressing Trade**

<b>TOTAL</b>	<b>99</b>	<b>*</b>
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#### **Mechanical Engineering Industry**

Working directors-supervisors	—	315
Blacksmiths	12	*
Boilermakers	213	409
Coach-trimmers	2	*
Coppersmiths	4	*
Diesel-plant fitters	89	534
Electroplaters	4	*
Fitters	201	1007
Fitters and turners	583	1254
Locksmiths	4	*
Machine-toolsetters	1	11
Millwrights	3	29
Moulders	45	104
Pattern-makers	28	*
Plater/welders	66	201
Refrigeration mechanics	39	*
Riggers	4	*
Roll-turners	10	12
Sheet-metal workers	28	187
Scale-fitters	9	*
Tool-jig and die-makers	70	140
Turners	18	187
Vehicle body builders	50	116
Welders	17	302

<b>TOTAL</b>	<b>1500</b>	<b>4808</b>
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#### **Printing Industry**

Working directors-supervisors	—	6
Compositors	52	260
Letterpress machine minders	25	65
Rotary stereotyping and rotary machine-minders	14	36
Lithographers	32	94
Photolithographers	19	31
Process-engravers	7	17
Machine-minders (packaging)	12	65

Stereotypers	—	*
Bookbinders and/or rulers	16	75
Photogravurists	—	*
Printers' mechanics (typesetting and general)	20	31
Silkscreen printers	—	*
Engraving and die-sinkers	—	*
Carton-makers	14	15
Corrugated board and container machine operators	10	3
Printers' mechanics (envelope and stationery machines)	1	10
<b>TOTAL</b>	<b>222</b>	<b>708</b>
<b>GRAND TOTAL (SIX INDUSTRIES &amp; HAIRDRESSING)</b>	<b>3741</b>	<b>13663</b>

\*In these trades there was no levy and no journeymen's returns were submitted.  
*Source: Annual Report of the Apprenticeship Training and Skilled Manpower Development Authority, 1976, Appendix 3.*

*Table D: BLACK EMPLOYEES AND ECONOMICALLY ACTIVE WHITES BY INDUSTRY IN 1969*

<i>Industry</i>	<i>Blacks</i>			<i>Whites</i>			<i>Grand Total</i>
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	
<b>Agriculture etc.</b>							
Agricultural and livestock production, hunting	212667	32524	245191	6972	605	7577	252768
Agricultural services	6536	609	7145	464	119	583	7728
Forestry and logging	3175	230	3405	146	36	182	3587
Fishing	144	1	145	9	—	9	154
<b>TOTAL</b>	<b>222522</b>	<b>33364</b>	<b>255886</b>	<b>7591</b>	<b>760</b>	<b>8351</b>	<b>264237</b>
<b>Mining and Quarrying</b>	<b>46836</b>	<b>985</b>	<b>47821</b>	<b>2985</b>	<b>368</b>	<b>3353</b>	<b>51174</b>
<b>Manufacturing:</b>							
Foodstuffs except beverages	16126	1339	17465	1387	699	2086	19551
Beverages	2693	24	2717	422	166	588	3305
Tobacco and tobacco products	2294	148	2442	505	178	683	3125



Industry	Black			Whites			Grand Total
	Males	Females	Total	Males	Females	Total	
Textiles, clothing, footwear	19342	1848	21190	1274	974	2248	23438
Wood and wood products	8430	97	8527	520	110	630	9157
Paper and paper products	1535	8	1543	324	139	463	2006
Printing and publishing	1492	20	1512	1202	544	1746	3258
Chemicals and chemical prods.	3823	65	3888	1014	428	1442	5330
Rubber and plastic prds.	1750	48	1798	371	140	511	2309
Non-metallic mineral products	4749	62	4811	554	121	675	5486
Machinery, metals and products	20368	154	20522	5476	842	6318	26840
Other manufacturing	652	94	746	140	57	197	943
<b>TOTAL</b>	<b>83254</b>	<b>3907</b>	<b>87161</b>	<b>13189</b>	<b>4398</b>	<b>17587</b>	<b>104748</b>
Electric light/power	2898	8	2906	1186	163	1349	4255
Water works & supply	1291	2	1293	113	6	119	1412
<b>TOTAL gas/water</b>	<b>4189</b>	<b>10</b>	<b>4199</b>	<b>1299</b>	<b>169</b>	<b>1468</b>	<b>5667</b>
<b>Construction</b>	<b>41109</b>	<b>155</b>	<b>41264</b>	<b>7179</b>	<b>650</b>	<b>7829</b>	<b>49093</b>
<b>Finance, Insurance, Real Estate</b>							
Monetary Institutions	612	—	612	1245	1506	2751	3363
Other financial inst. and services	793	11	804	715	897	1612	2416
Insurance	526	2	528	819	950	1769	2297
Real estate	627	2	629	268	280	548	1177
<b>TOTAL</b>	<b>2558</b>	<b>15</b>	<b>2573</b>	<b>3047</b>	<b>3633</b>	<b>6680</b>	<b>9253</b>
<b>Trade, Restaurants, Hotels</b>							
Wholesale trade	9314	133	9447	4334	2628	6962	16409
Retail trade	24579	1611	26190	6486	6415	12901	39091
Restaurants	3448	268	3716	285	162	447	4163

<i>Industry</i>	<i>Blacks</i>			<i>Whites</i>			<i>Grand Total</i>
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>	
Hotels, rooming houses etc.	6097	277	6374	461	519	980	7354
<b>TOTAL</b>	<b>43438</b>	<b>2289</b>	<b>45727</b>	<b>11566</b>	<b>9724</b>	<b>21290</b>	<b>67017</b>
<b>Transport/Comms.</b>							
Land transport	13363	53	13416	6655	795	7450	20866
Air transport	645	—	645	758	250	1008	1653
Services allied to transport	298	1	299	194	295	489	788
Communication servcs.	890	4	894	824	856	1680	2574
<b>TOTAL</b>	<b>15196</b>	<b>58</b>	<b>15254</b>	<b>8431</b>	<b>2196</b>	<b>10627</b>	<b>25881</b>
<b>Services</b>							
Public administrn.	24268	419	24687	8559	2747	11306	35993
Sanitary and related	802	15	817	10	6	16	833
Education	14057	3003	17060	2101	4137	6238	23298
Health	4538	2715	7253	1083	2624	3707	10960
Other social servcs.	9129	1603	10732	1350	1181	2531	13263
Business services	2872	30	2902	1899	1721	3620	6522
Recreational/cultural	4387	80	4467	777	531	1308	5775
Personal and household etc.	93251	16808	110059	1048	1066	2114	11273
International servcs.	36	—	36	67	64	131	167
<b>TOTAL</b>	<b>153340</b>	<b>24673</b>	<b>178013</b>	<b>17066</b>	<b>14209</b>	<b>31275</b>	<b>209288</b>
<b>GRAND TOTAL</b>	<b>612442</b>	<b>65456</b>	<b>677898</b>	<b>73660</b>	<b>36703</b>	<b>110363</b>	<b>788261</b>

*Source: Census of Population, 1969, Tables 51 and 77 (calculated from)*

**Table E: OCCUPATIONS OF ECONOMICALLY ACTIVE WHITES  
IN 1969**

**Professional, Technical and Related Workers**

Physical scientists and related technicians (Chemists: 138; geologists: 135; technicians: 254)	670
Architects and town planners	191
Engineers	1,202

(Civil: 375; Electrical: 264; Mechanical: 255)	
Surveyors	305
Draughtsmen and lithographic artists	572
Engineering technicians	1,553
(Civil: 402; telecommunications: 492; electrical: 190)	
Aircraft Officers	135
Life scientists and related technicians	802
(Biologists: 91; agronomists: 80; conservation officers: 247)	
Medical, dental, veterinary and related workers	3,542
(Physicians and surgeons: 533; dentists: 89; health inspectors and sanitarians: 132; pharmacists: 213; professional nurses: 1,427; medical X-ray technicians: 117)	
Statisticians, mathematicians, systems analysts etc.	144
Economists and market research analysts	54
Accountants and auditors	1,296
Jurists	334
(Lawyers: 256, judges and magistrates: 70)	
Teachers	4,648
(University: 396; school: 3,964)	
Workers in religion	1,028
Authors, journalists and related writers	253
Sculptors, painters, photographers and related artists	473
Performing artists	182
Athletes, sportsmen and related workers	103
Other	436
(Librarians and archivists: 163; social workers: 130)	

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TOTAL	17,923
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#### **Administrative and Managerial Workers**

Legislative officials	41
Central government administrators	637
Managers	4,619
(Production: 710; sales: 587; administration: 1,679)	

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TOTAL	5,297
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#### **Clerical and Protective Workers**

Clerical supervisors	204
Central government executive officials	1,612
Stenographers and typists, punching machine operators	7,307
(Stenographers: 4,307; typists: 2,861)	
Book-keepers, cashiers, and related workers	7,163
Computing-machine operators	1,317
Transport and communications supervisors	1,021
Transport conductors	416
Mail distribution clerks	14

Telephone and telegraph operators	654
Other clerical and protective workers	16,685
(Stock clerks: 790; firefighters: 171; prison officials: 185 receptionists: 749; legal clerks: 113)	

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TOTAL	36,393
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#### **Sales Workers**

Working proprietors (wholesale and retail trade)	1,652
Managers (wholesale and retail trade)	2,598
Sales supervisors (wholesale and retail trade)	426
Buyers and purchasing agents	462
Technical salesmen, commercial travellers, etc.	1,502
(Technical salesmen: 320; commercial travellers: 994)	
Financial etc. salesmen and auctioneers	1,008
(Insurance salesmen: 421; auctioneers and appraisers: 186)	
General salesmen, shop assistants, and related workers	4,614

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TOTAL	12,262
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#### **Service Workers**

Working proprietors and managers (catering and lodging)	734
Housekeeping and related service supervisors	735
Cooks, waiters, bartenders, etc.	522
Housekeeping service workers	142
Building caretakers and related workers	318
Launderers and dry cleaners etc.	137
Hairdressers, barbers, beauticians, etc.	959
Other service workers	299

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TOTAL	3,846
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#### **Agricultural, Animal husbandry, Forestry Workers etc.**

Farmers (so stated)	4,825
Farm managers, supervisors and assistants	1,883
Agricultural and animal husbandry workers	578
Forestry workers	58
Fishermen, hunters etc.	24

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TOTAL	7,368
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## Production and Transport Workers

Production supervisors and general foremen	2,984
(Mining etc: 350; metal processing: 109; construction: 921)	
Miners, quarrymen, well drillers etc.	846
Metal processors	422
Wood preparation workers and paper makers	71
Chemical processors and related workers	46
Spinners, weavers, knitters, dyers, etc.	185
Tanners etc.	9
Food and beverage processors	765
Tobacco preparers and cigarette makers etc.	147
Tailors, dressmakers, upholsterers and related workers	584
Shoemakers and leather goods makers	63
Cabinet-makers and related woodworkers	79
Stone cutters and carvers	3
Blacksmiths, toolmakers and machine-tool operators	642
Machinery fitters and assemblers (non-electrical)	3,404
Precision apparatus and instrument makers etc. (non-elect)	162
Machinery mechanics (non-electrical)	2,291
(Automobile mechanics: 1,924; office machinery: 57)	
Electricians, electrical and electronics fitters	2,407
Broadcasting, cinema and sound equipment operators	60
Plumbers, welders, metal preparers, and erectors	2,155
(plumbers and drain layers: 425; welders: 546; boilermakers: 419; sheet metal workers: 330; panel beaters: 158; riveters: 77)	
Jewellery and precious metal workers	90
Glass formers, potters, etc.	50
Rubber and plastic product makers	79
Paper and paperboard product makers	71
Printers and related workers	1,148
(printers: 256, compositors, typesetters and proof-readers: 198; lithographers: 109; bookbinders etc: 160)	
Painters, n.e.s.	309
Other production workers	90
Bricklayers, carpenters and other construction workers	2,817
(Bricklayers: 459; carpenters, joiners: 1,055, plasterers: 257; glaziers and decorators: 183)	
Stationary engine and related equipment operators	367
Material handlers and handling equipment operators	277
Earth-moving and related machinery operators	233
Transport equipment operators	1,915
(Engine drivers: 611; firemen: 488; signalmen: 80; shunters: 410; truck and bus drivers: 250; taxi drivers: 1)	
Labourers, n.e.s.	18

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TOTAL	24,785
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**Workers not Classifiable by Occupation**

Workers seeking first employment	765
Inadequately described	860
Workers not reporting any occupation	864

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<b>TOTAL</b>	<b>2,489</b>
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<b>GRAND TOTAL OF ECONOMICALLY ACTIVE WHITES</b>	<b>110,363</b>
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*Source: Census of Population, 1969, Table 61. A more detailed breakdown is given by occupation, sex, and race (European, Asian or Coloured)*

**Table F: ENROLMENTS AT OTHER EDUCATIONAL INSTITUTIONS**

	1969	1972	1976	1977
Bulawayo Technical College	1,429	1,474	1,973	1,637
Chibero Agricultural College	79	77	80	80
Gwebi Agricultural College	84	82	75	84
Salisbury Polytechnic	1,895	1,987	2,499	2,215
Teachers' College Bulawayo	437	502	455	431
University of Rhodesia	857	978	1,506	1,617

*Notes:*

The Bulawayo and Salisbury Polytechnic enrolments are very largely of whites. Figures for Bulawayo Technical College include part-time students; Chibero is for blacks only, Gwebi for whites; Salisbury Polytechnic figures include part-time students. Figures refer to the beginning of the academic year (January, October, September, January, January and March respectively).

*Source: Monthly Digest of Statistics, October 1977 (Supplement), Table 5.*

**Table G: QUALIFICATIONS OF SCHOOL LEAVERS BY LAST GRADE ENROLLED**

<i>Blacks</i>	<i>Form I</i>	<i>Form II</i>	<i>Lower VI</i>	<i>Upper VI</i>	<i>Total Leavers</i>
1961	49	254	18	34	355
1962	92	308	15	56	471
1963	103	307	20	36	466

1964	69	328	10	35	442
1965	73	545	2	56	676
1966	174	720	16	94	1,004
1967	—	941	17	139	1,097
1968	180	1,131	1	139	1,451
1969	89	1,431	14	180	1,714
1970	92	1,785	10	182	1,969
1971	126	2,095	16	184	2,421
1972	132	2,239	7	223	2,601
1973	124	2,729	4	302	3,159
1974	206	3,696	20	341	4,263
1975	292	3,714	29	373	4,408
1976	796	4,424	49	368	5,637
1977	950	6,368	75	447	7,840

Whites	Form 3	Form 4	Form 5	Form VIM	Form VIL	Form VIU	Total
1961	763	1,921	224		371	405	3,684
1962	577	1,959	639		267	491	3,933
1963	560	2,451	565		111	422	4,109
1964	786	2,895	391		175	522	4,769
1965	536	2,859	717		42	641	4,795
1966	362	2,847	369	12	104	506	4,200
1967	346	2,812	328	250	24	591	4,351
1968	386	2,751	557	186	68	579	4,527
1969	465	2,782	598	216	139	656	4,856
1970	344	2,887	709	244	60	666	4,910
1971	303	3,153	684	232	141	753	5,266
1972	399	2,903	803	137	133	724	5,099
1973	440	2,920	742	50	300	754	5,206
1974	400	3,279	844	312	54	871	5,760
1975	552	3,374	724	106	97	819	5,672
1976	579	3,309	757	280	264	811	6,000
1977	544	3,098	1,094	317	93	850	5,146

Source: calculated from *Monthly Digest of Statistics*, March 1969 Table 10 and October 1977 (Supplement), Table 4.

Note: Because of introduction of new classes it is not always clear from the statistics how many left in two neighbouring years; in these cases it has been assumed that pupils stayed the longer period.

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