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**Apprentice selection: An HSRC/
NTB survey of policies and
methods used in the RSA with an
emphasis on psychometric testing**

P. Holburn

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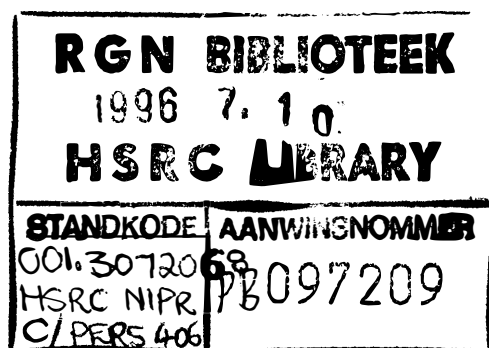


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EKSERP

Hierdie verslag beskryf die bevindings van 'n ondersoek wat onderneem is om die indiensnemingsbeleid en keuringsmetodes te bepaal wat indiensnemers gebruik vir die seleksie van vakleerlinge. Die verslag handel oor beleid en metodes oor die algemeen en ondersoek die toepassing daarvan met die seleksie van verskillende rasse en van verskillende geslagte.

Die navorsing vorm deel van 'n groter projek wat gerig is op die ondersoek van regverdigde vakleerlingseleksiepraktyke met spesifieke verwysing na toetssydigheid. Metodes en beleid wat tans in gebruik is, moet geëvalueer word met die oog op die ontwikkeling of aanpassing van toepaslike tegnieke.

'n Vraelys wat 'n wye verskeidenheid onderwerpe met betrekking tot vakleerlingseleksie dek, is aan ongeveer 3 800 organisasies gestuur wat vakleerlinge in diens neem. Hierdie organisasies was van verskillende grootte en uit 'n verskeidenheid industriële sektore. Seshonderd-vier-en-veertig van hierdie organisasies het ingevulde vraelyste teruggestuur. Hierdie data is gebruik vir die analise soos in die verslag uiteengesit.

Die verslag dek werwingstrategieë, toelatingsvereistes, seleksieprosedures en beleid vir die seleksie van vakleerlinge, insluitend die gebruik en toepassing van verskillende psigometriesse toetse vir verskillende groepe. Probleme in verband met die seleksie van vakleerlinge en die uitwerking van die resessie en tegnologiese ontwikkeling word bespreek. Die impak van tegnologiese ontwikkeling op opleiding en vaardigheidsvereistes, asook op werwing- en seleksiepraktyke word ondersoek.

Daar word aanbeveel dat die psigometriesse toetse wat gebruik word vir die seleksie van vakleerlinge geëvalueer moet word in terme van geskiktheid vir multikulturele toepassing. Daar word ook voorgestel dat psigomotoriese toetse en werkmomstertoetse of opleibaarheidstoetse vir insluiting by seleksieprogramme oorweeg moet word. Daar word voorgestel dat modulêre opleiding en seleksie geïntegreer moet word om 'n regverdigde en effektiewe seleksieprosedure te skep. Vroeë modules kan as opleibaarheidstoetse gebruik word om te bepaal of die applikant met opleiding kan voortgaan.

ABSTRACT

This report describes the findings of a survey undertaken to determine the employment policies and selection methods that apprentice employers use to select apprentices. The report deals with policies and methods in general, and examines the application of these in the selection of different races and in the selection of males and females.

The research forms part of a larger project aimed at investigating fair apprentice selection practices with particular reference to test bias. Currently used methods and policies need to be assessed with a view to developing or adapting appropriate techniques.

A questionnaire covering a wide variety of topics relevant to apprentice selection was sent to approximately 3 800 organizations which employ apprentices. These organizations were of various sizes and from many sectors of industry. Six hundred and forty-four of these organizations returned completed questionnaires. This data was used for the analyses presented in this report.

The report covers recruitment strategies, admission requirements, selection procedures and policies for selecting apprentices, including the usage and administration of different psychometric tests for different groups. Problems associated with apprentice selection and the effects of the recession and technological developments are discussed. The impact of technological developments on training and skill requirements, and on recruitment and selection practices is also examined.

It is recommended that the psychometric tests employed to select apprentices need to be evaluated for their suitability in multi-cultural applications. It is also suggested that psychomotor tests and work sample or trainability tests be considered for incorporation in selection programmes. The idea is proposed that modular training and selection could be integrated to create a fair and effective selection procedure: early modules could be used as trainability tests to determine whether the applicant should continue with training.

1. INTRODUCTION AND BACKGROUND TO THE STUDY

In most cases the number of applicants for jobs outstrips the number of positions available, and decision procedures have to be applied in order to decide who shall be offered employment.

A variety of techniques are used in selection, including application forms, interviews, and tests. The aim of selection is to match individual skills to job requirements; and the rationale behind it is that both the individual and the organization will benefit from the procedure.

The above description of selection assumes that organizations operate in a social and political vacuum, and are free to set all the rules. This is not so. McCormick & Ilgen (1985) point out that selection is not just a simple matching of individual and organizational needs; society also influences the manner in which selection procedures are conducted. Society sets certain standards as to what are, and are not, acceptable practices. In some instances these can be in the form of laws. For example, until fairly recently in South Africa only whites could be indentured as apprentices.

The removal of laws permitting only whites to be indentured as apprentices, as well as the growing concern of many employers for promoting equal employment opportunity among all applicants irrespective of race or sex, has made it necessary to re-evaluate selection procedures. Earlier procedures were designed for selecting from a relatively homogeneous group who had been exposed to fairly similar educational and social backgrounds. As individuals of all races are now being indentured as apprentices, it is necessary to investigate how selection procedures are currently being applied and how these might have to be adapted in order to achieve more equitable selection.

The selection process is of critical importance both to the individual and to the organization. The applicant will either be offered a job or turned away; the organization will become more or less productive depending on who it selects. This makes it imperative that these procedures be fair and efficient. In the USA and UK selection procedures are constantly being challenged as to their fairness and validity. London and Bray (1986) propose that a growing concern for human rights has placed career decision making, together with associated selection practices, in the spotlight. Psychometric tests have come under the greatest amount of scrutiny mainly because of the suspicion that these might be biased against certain groups. Critics of tests have often overlooked, however, that any element in the selection process can introduce bias. Reilly & Chao (1982), Monahan & Muchinsky (1983) and Hale (1986) report that increasing concern with fair selection practices has possibly resulted in the enthusiasm for testing in the 1950s and 1960s declining in the 1970s. These authors report that some businesses have cut-back on testing programmes, some have abandoned testing, some have concentrated on finding alternative

selection techniques, and some have concentrated on evaluating bias in their tests. Although critics of selection procedures have paid too much attention to tests relative to other aspects of selection, the practice of subjecting selection procedures to investigation is a salutary one. Public scrutiny forces organizations to provide evidence as to the fairness and appropriateness of employment practices.

Taylor & Radford (1986), Moerdyk (1987) and Taylor (1987a) propose that human resource professionals in South Africa will be called on increasingly to give concrete evidence that their selection practices are non-discriminatory. Selection methods will have to be shown valid for all groups for all purposes for which they are used. Taylor and Radford (1986) contend that arguments in the USA that psychological tests do not discriminate unfairly against some groups should not be assumed to hold in South Africa. Empirical research needs to be carried out in South Africa. In this regard Taylor (1987b) suggests that IPER/NIPR need to do research and publish findings on test bias and the fair use of tests.

In 1985 the National Training Board and HSRC published a report on the findings and recommendations of a large-scale investigation into artisan training in the RSA. The recommendations were subsequently commented on in a government White Paper. Among these recommendations are several pertaining to the selection of apprentices. The need to investigate bias and fairness in the selection of apprentices in South Africa was endorsed.

The HSRC/NTB (1985) report contains the following recommendations with regard to fair employment practices:

1. Factors limiting the employment of females and non-whites, such as poor housing and prejudices must be identified and counteracted.
2. A selection procedure should be used which ensures that all candidates are assessed effectively; this would be to the advantage of the candidate and organization. The authors propose that tests of cognitive abilities constitute the best single source of information on expected training and job performance, and should be included in the selection programme.
3. Research should be undertaken on the influence of cultural differences on selection instruments in order to ensure the equitable use of tests in the RSA.

These recommendations were endorsed in a subsequent White Paper (1987).

The NTB followed up these recommendations by proposing that a project be undertaken to investigate cultural bias in assessment instruments used in the selection of apprentices. The NTB commissioned and funded the NIPR to conduct this research. This report contains the findings

of one of the stages of the project. It is concerned with detailing procedures currently used by industry to select apprentices of all races and both sexes.

Before the survey reported in this document was conducted, a preliminary survey of a much smaller magnitude was undertaken comprising interviews with employers of apprentices. The aim was to ascertain specific problems and concerns that various industries had with aspects of apprentice selection. The results of this preliminary investigation are reported in Watt (1987). The findings obtained by Watt were used as a guide in the compilation of the questionnaire used in the survey reported on here.

There are nine chapters in this report. In chapter 2 the delineation of the sample and construction of the questionnaire is discussed. In chapter 3 the sample of respondents is described and in chapter 4 recruitment strategies are described. The admission requirements of respondent organizations are discussed in chapter 5, and in chapter 6 selection procedures are outlined. In chapter 7 selection policies relating specifically to the employment of apprentices of all races and both sexes are described. In chapter 8 some of the organizations' comments to specific problems such as recession and technological advances are discussed, and in chapter 9 the findings are summarized and a conclusion presented.

2. SELECTION OF THE SAMPLE AND CONSTRUCTION OF THE QUESTIONNAIRE

2.1 CONSTRUCTION OF THE QUESTIONNAIRE

In order to obtain the required information on apprentice selection procedures it was decided to mail a questionnaire to employers of apprentices. Prior to constructing the questionnaire, interviews were held with representatives of various employer organizations and industries to obtain an idea of problems they were facing with regard to apprentice selection. The information obtained from this exercise helped the researchers to design the questionnaire. The findings of the interview phase of this study are contained in a report by Watt (1987).

A preliminary questionnaire was sent to a small sample of apprentice employers for comment.

2.2 DETERMINATION OF THE MAILING LIST

The questionnaire was designed to be completed by employers of apprentices, most particularly by those personnel who are involved in selecting apprentices. A list of organizations employing apprentices was obtained by approaching technical colleges, (see Watt, 1987, for further information in this regard). The survey was a nation-wide one, and thus all mentioned organizations employing apprentices in the RSA were included on the mailing list.

As the questionnaire was lengthy, and not easy to complete, it was anticipated that the return rate would be low. Thus, prior to mailing out the final version of the questionnaire, an attempt was made to try to increase the number of respondent organizations by telephonically obtaining cooperation from several larger companies which employ many apprentices. Approximately 400 organizations were contacted. This did seem to improve the return of completed questionnaires.

The questionnaire, together with a covering letter in both official languages explaining the rationale behind the survey, was mailed out during October 1987. Approximately 3800 questionnaires were sent out.

Most of the organizations whose responses are analyzed in this report had returned completed questionnaires by January 1988.

3. DESCRIPTION OF THE SAMPLE

In this chapter of the report we will examine some of the characteristics of the respondent sample.

Of the 3800 questionnaires which were mailed, 964 were returned. Of these, 644 were returned completed. Approximately 320 companies telephoned or sent written replies saying that it was inappropriate for them to complete such a lengthy questionnaire on formalized apprentice selection procedures. Reasons given for not completing the questionnaire included the following: The organization no longer trains apprentices; it has only a few apprentices; and selection is on an ad hoc basis.

The analyses performed on the data are based on the replies of the 644 organizations who returned completed questionnaires. Not all of these 644 organizations answered all questions however (in some instances not all questions were appropriate for all organizations). The analyses reported in this chapter examine the geographical location of respondents, the industries into which they are classified, their size, and the number of apprentices they employed at the time of completing the questionnaire.

In Table 3.1 the geographical distribution of the 644 organizations included in the analysis is listed. The same data, although in a slightly condensed form, is depicted in Figure 3.1,

From Table 3.1 and Figure 3.1 it can be seen that nearly half of the organizations responding are from the Transvaal (48,8%); 23,5% are situated in Natal; 20% in the Cape; and 7,7% in the Orange Free State. The East Rand, Johannesburg and Pretoria regions account for the largest number of respondents in the Transvaal: 32,4% of the total sample. The greatest number of respondents from Natal and the Cape Province are in Durban and Cape Town respectively. The largest number of respondents from the Orange Free State are located in the north of the province.

The number of organizations responding in each designated industry is indicated in Figure 3.2. Twenty-nine organizations indicated that their activities fall into two industries. All 644 organizations named at least one industry into which they could be classified. The automobile and motor industries are combined into one category called "motor industry" as many respondents did not appear to know the difference between them.

From Figure 3.2 it can be seen that the two industries with the largest number of responding organizations are the motor and metal industries. The motor industry accounts for 24,8% of respondents, the metal industry 21,7%. The hairdressing industry also accounts for a sizeable percentage of respondents (10,7%). Industries with fewer than 10 respondents include aerospace, furniture, coal mining, sugar and tyre and rubber.

TABLE 3.1 GEOGRAPHICAL DISTRIBUTION OF ORGANIZATIONS RESPONDING

AREA	N	% of 639
Johannesburg and branches	72	11,3
Pretoria and branches	35	5,5
East Rand	100	15,6
West Rand	17	2,7
North & North West Transvaal	16	2,5
East Transvaal	18	2,8
South East Transvaal	17	2,7
South Transvaal	5	0,8
Vaal Triangle	13	2,0
West & South West Transvaal	19	3,0
	312	48,8
Durban and branches	55	8,6
Pietermaritzburg	12	1,9
North Natal and Zululand	14	2,2
Natal interior	44	6,9
South coast	12	1,9
North coast	7	1,1
Southern Natal	6	0,9
	150	23,5
Cape Town and branches	39	6,1
Port Elizabeth and branches	20	3,1
East London and branches	11	1,7
Eastern Cape	14	2,2
South Cape coast	6	0,9
Karoo	1	0,2
South West Cape	26	4,1
Kimberley and branches	8	1,3
North and North West Cape	3	0,5
	128	20,0
Bloemfontein and branches	15	2,3
North Orange Free State	23	3,6
Drakensberg	10	1,6
South Orange Free State	1	0,2
	49	7,7
	639	

Note. Information was missing for 5 organizations.

**Figure 3.1 Geographical Distribution
of Respondents**

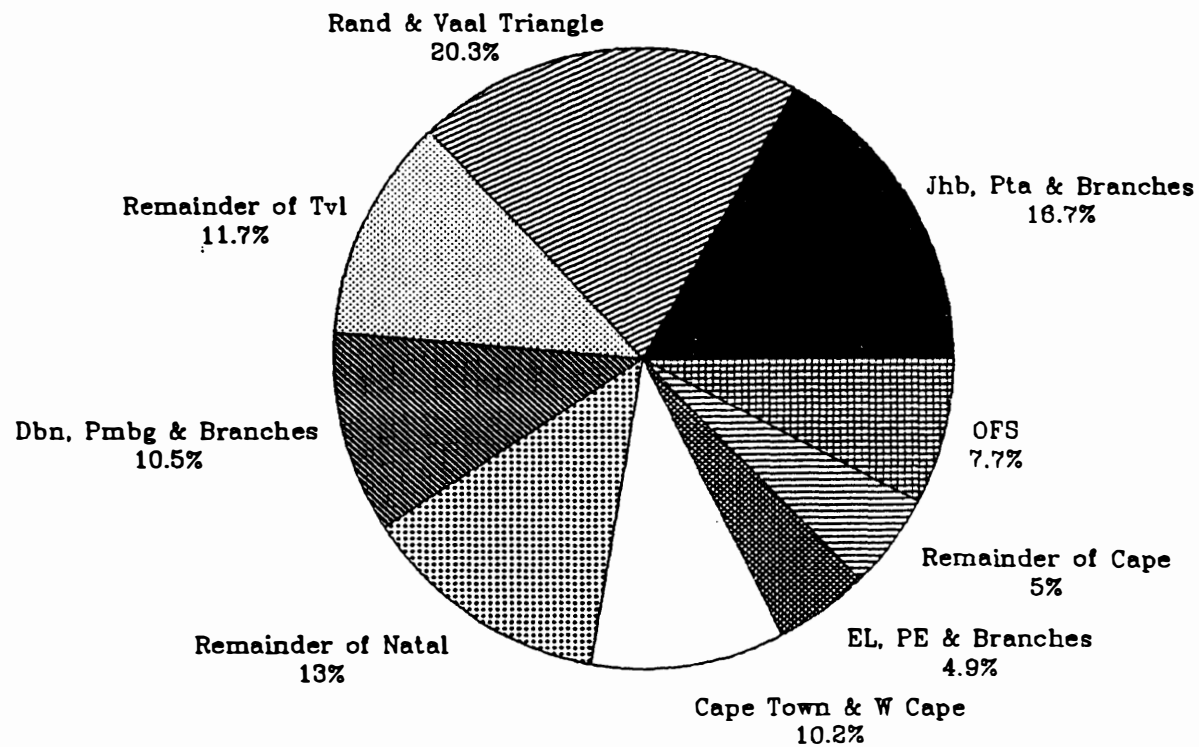
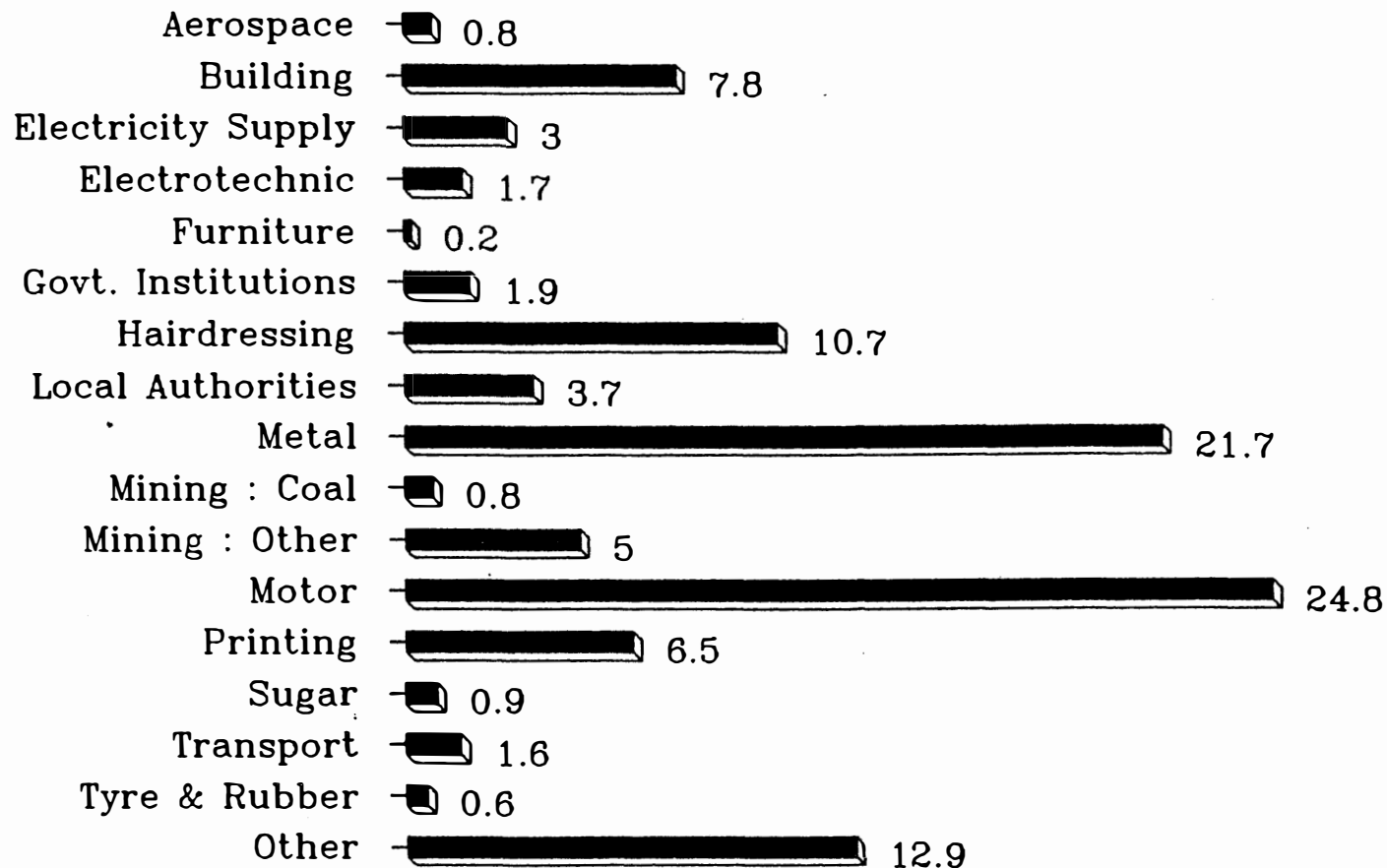


Figure 3.2 Percentage of Respondents
in the various Industries



In some industries, few organizations responded because there are probably only a few organizations in that industry. Only one company from the furniture industry responded; the reason for this might be that most companies in this industry are small, employing one or two apprentices only, and selection tends to be informal.

For many of the industries, most responding organizations are based in the Transvaal. The aerospace industry respondents are entirely concentrated on the Witwatersrand, while the coal mining and sugar industry respondents are found in the Transvaal and Natal only. The sugar and printing industries have most respondents in Natal. Most respondents from the tyre and rubber industry and the building industry are in the Cape. The only furniture company which responded is located in the Orange Free State.

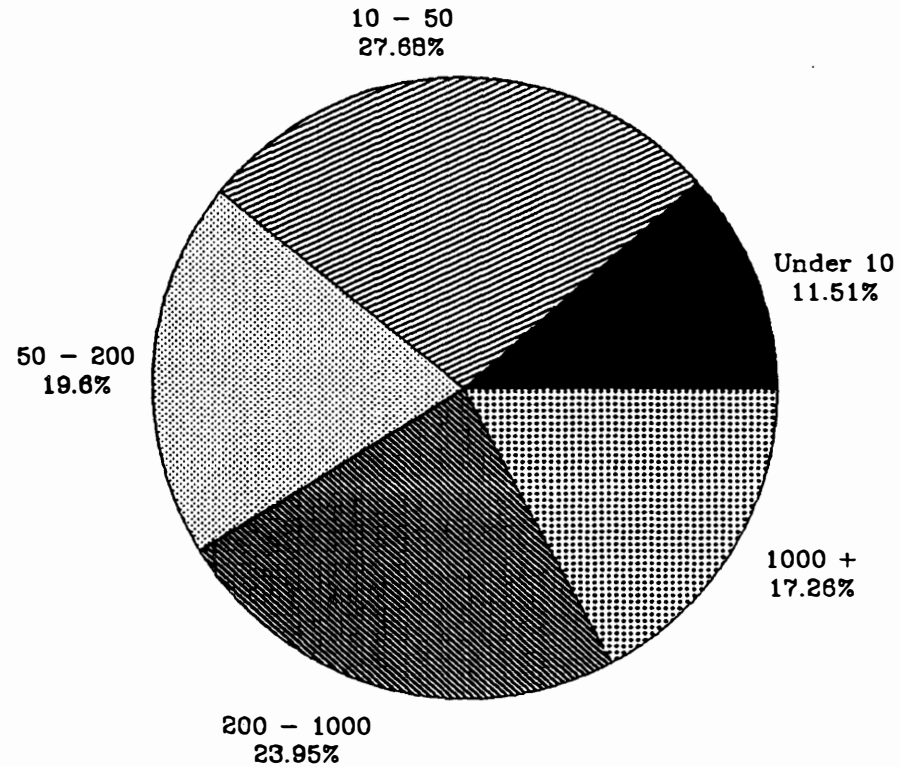
In Figure 3.3 the responding organizations are classified according to their total number of employees. In terms of the categories used in this study the fewest number of respondents are in the category "under 10 employees. Thus there may have been a tendency for larger organizations to respond, possibly because larger companies are more likely to have formalized selection policies. Small organizations with one or two apprentices are likely to utilize fairly casual selection procedures, consisting often of no more than an interview. Overall, from Figure 3.3 it can be seen that a reasonable number of various sized organizations comprise the sample.

For each size category, the greatest number of respondents are in the Transvaal, and the fewest in the Orange Free State. Industries which have mostly large companies (200-1000, and 1000+ employees) include the electricity supply, mining, sugar, tyre and rubber industries, and local authorities. The hairdressing and motor industries tend to comprise small companies.

In Figures 3.1, 3.2 and 3.3 and Table 3.1 the respondent organizations have been described in terms of geographical location, industry of major activity, and size. Tables 3.2, 3.3 and 3.4 list the number of apprentices employed by respondent organizations in certain categories.

In Table 3.2 the total number of apprentices indentured by respondents is indicated, as well as the total number in each race group, and percentages and totals in each trade category. (See Appendix A for a list of trades comprising the various trade categories.) Of the respondent organizations, 27 declined to give numbers for their apprentices, although some indicated that they currently had no apprentices but would be indenturing in the near future. Thus the grand total figure of 13304 apprentices is probably below the number employed by all 644 respondent organizations.

Figure 3.3 Size of
Organizations Responding



Number of Employees

The greatest number of apprentices are in the electrical (H.C.) category (3385), followed by the maintenance mechanics category (2157), and the turning/machining (2023) category. Few apprentices are in the upholstering/trimming (10), plastics and fibreglass (3), and electroplating (13) trades.

TABLE 3.2 PERCENTAGES AND TOTAL NUMBER OF APPRENTICES IN THE TRADE CATEGORIES

TRADE CATEGORIES	PERCENTAGE OF APPRENTICES				Total
	A	B	C	W	
Bookbinding/ruling	5,9	0,0	11,8	82,4	34
Bricklaying/plastering/tiling	5,1	29,1	25,3	40,5	79
Carpentry/woodwork	3,0	10,8	33,4	52,8	371
Compositing	7,8	3,1	20,3	68,8	64
Diesinking/pressing/engraving	3,7	2,8	4,0	89,5	324
Electrical (heavy current)	2,1	5,7	2,2	90,0	3385
Electronics	0,0	0,6	0,3	99,1	346
Electroplating	0,0	0,0	0,0	100,0	13
Fitting	4,5	15,6	3,4	76,4	1163
Hairdressing	0,0	2,2	6,7	91,1	180
Instrument mechanics	2,9	4,3	2,2	90,6	417
Machine minding	9,0	3,4	13,0	74,6	177
Machine & toolsetting	0,0	0,0	0,0	100,0	52
Maintenance mechanics	3,3	3,7	4,2	88,9	2157
Metalworking	4,2	2,3	10,1	83,4	308
Moulding	0,0	9,3	14,8	75,9	54
Painting/spraypainting	3,6	1,8	43,6	50,9	55
Plastics and fibreglass	0,0	0,0	33,3	66,7	3
Radio/radar/communications	0,3	0,8	0,8	98,3	400
Rigging	0,0	0,9	0,0	99,1	115
Turning/machining	3,1	8,3	4,1	84,5	2023
Upholstering/trimming	0,0	0,0	10,0	90,0	10
Welding/plating/boilermaking	2,9	12,8	10,5	73,9	1358
Other *	8,3	5,1	25,0	61,6	216
Total number	391	928	770	11215	13304
% of total **	2,9%	7,0%	5,8%	84,3%	100%

KEY A: Asians

B: Blacks

C: Coloureds

W: Whites

Note. Percentages, excluding **, are calculated for each trade category from the total number of apprentices in that trade category.

Information was missing for 27 organizations.

* includes trades not named or not classifiable in previous categories.

It can be seen from the percentages for each trade category and the overall totals that the number of white apprentices greatly exceeds the number of apprentices of other races. In this sample 84,3% of apprentices are white. However, from the percentages it is clear that the bricklaying/plastering/tiling, carpentry/woodwork, and painting/spraypainting trades tend to have proportionately more apprentices of other races. In the technologically advanced trades - electrical (heavy current), electronics, radio/radar/communications - a very high percentage of apprentices are white. Thus from the table it appears that the less technologically advanced trades account for a greater number of non-white apprentices than the technologically advanced trades.

The total number of apprentices of all races in each industry can be seen in Table 3.3.

TABLE 3.3 PERCENTAGES AND TOTAL NUMBER OF APPRENTICES IN EACH TYPE OF INDUSTRY

INDUSTRY	PERCENTAGE OF APPRENTICES				Total
	A	B	C	W	
Aerospace	0,1	1,1	1,1	97,8	760
Building	6,4	16,8	39,6	37,2	422
Elect. supply	0,3	0,7	0,5	98,5	869
Electrotechnic	1,5	9,1	6,1	83,3	66
Furniture	.	.	.	.	.
Govt. institutions	0,0	0,0	3,1	96,9	162
Hairdressing	0,0	2,2	6,7	91,1	180
Local authorities	1,8	1,1	3,3	93,8	552
Metal	4,7	14,4	10,8	70,1	2362
Mining:coal	0,3	6,6	4,9	88,2	755
Mining:other	0,4	8,3	3,6	87,7	2672
Motor	7,5	3,9	9,7	78,9	750
Printing	8,6	2,2	13,2	76,0	408
Sugar	24,3	28,3	8,6	38,8	152
Transport	1,5	0,6	0,6	97,2	2919
Tyre & rubber	7,1	7,1	9,5	76,2	42
Other	5,3	16,0	4,4	74,3	1204

KEY A: Asians
 B: Blacks
 C: Coloureds
 W: Whites

Note. Some organizations are represented in more than one industry. For each industry percentages are calculated from the totals in the far right hand column.

The greatest number of apprentices are in the transport industry (2919). The organizations indicating they belong in the mining (non-coal) industry employ 2672 apprentices, and the metal industry employs 2362 apprentices. These three industries employ the greatest number of apprentices in this sample, and are the only industries to account for more than two thousand apprentices. The responding companies of two industries reported less than one hundred apprentices. These were the electrotechnic and tyre and rubber industries, with 66 and 42 apprentices respectively.

Industries with mostly white apprentices (above 96%) include the aerospace, electricity supply, and transport industries, and government institutions. Companies with greater proportions of non-white apprentices are found among the sugar and building industries. The geographical distribution of apprentices of different races in the responding organizations is shown in Table 3.4.

TABLE 3.4 GEOGRAPHICAL DISTRIBUTION OF APPRENTICES

AREA	NUMBER OF APPRENTICES				Total
	A	B	C	W	
Johannesburg & Pretoria	43	187	148	5475	5853
E & W Rand, Vaal Triangle	48	248	111	2145	2552
<u>Remaining Tvl</u>	<u>8</u>	<u>153</u>	<u>54</u>	<u>1671</u>	<u>1886</u>
Total Tvl	99	588	313	9291	10291
% Tvl	1,0	5,7	3,0	90,3	100,0%
Durban, Pietermaritzburg	162	118	59	287	626
<u>Remaining Natal</u>	<u>105</u>	<u>90</u>	<u>51</u>	<u>288</u>	<u>534</u>
Total Natal	267	208	110	575	1160
% Natal	23,0	17,9	9,5	49,6	100,0%
Cape Town, West Cape	15	21	226	335	597
East London, Port Elizabeth	7	24	63	159	253
<u>Remaining Cape Province</u>	<u>0</u>	<u>8</u>	<u>33</u>	<u>137</u>	<u>178</u>
Total Cape	22	53	322	631	1028
% Cape	2,1	5,2	31,3	61,4	100,0%
OFS	3	78	25	694	800
% OFS	0,4	9,8	3,1	86,8	100,0%
Total	391	927	770	11191	13279

KEY A: Asians
 B: Blacks
 C: Coloureds
 W: Whites

Note. Percentages for each province are calculated from the total for that province.

Most apprentices, 10291, or 77,5% of the 13279 total, are employed in the Transvaal. Just over half of those in the Transvaal, 5853, are in the Johannesburg and Pretoria areas. Natal employs slightly more apprentices than the Cape, and the OFS the fewest. The province with the most equitable distribution amongst races is Natal, followed by the Cape Province.

4. RECRUITMENT

Before apprentices can be indentured, a pool of applicants must be obtained through recruitment. Recruitment is important since one can only select apprentices from those individuals who apply. Hence, the number and kind of applicants is largely determined by recruitment methods utilized. If one's aim is to employ the best applicant from all race groups and both sexes, recruitment methods should be designed to reach all possible applicants.

This section is divided into two. The first outlines recruitment procedures used by respondent organizations. The second section looks at some problems experienced in recruitment.

4.1 RECRUITMENT STRATEGIES USED

Organizations were asked which recruitment methods they use when recruiting prospective apprentices. Table 4.1 details these for the whole sample. Recruitment strategies used by organizations of different sizes, and in different industries, are illustrated in Tables 4.2 and 4.3 respectively.

TABLE 4.1 LIST OF RECRUITMENT STRATEGIES USED BY ORGANIZATIONS

RECRUITMENT STRATEGY	N	% of 633
Advertisements in "Opportunities for School Leavers"	37	5,8
Advertisements in daily newspapers	198	31,3
Advertisements in magazines	28	4,4
Advertisements in weekly newspapers	99	15,6
Visit schools	72	11,4
Distribute brochures to schools	44	7,0
Encourage pupils to visit organization	56	8,8
Unsolicited applications	256	40,4
Word of mouth	299	47,2
Use employment agency	19	3,0
Selected from within company	48	7,6
Referrals from Dept of Manpower	29	4,6
Visit trade schools & technical colleges	30	4,7
Referrals from industry board	41	6,5

Note. Information was missing for 11 organizations.

Across all respondents the most commonly used recruitment method is word of mouth (47,2%), followed by unsolicited applications (40,4%). Advertisements in daily newspapers ranks third with 31,3% of respondents endorsing this alternative.

Methods which are infrequently used include making use of employment agencies, advertising in magazines, relying on referrals from the Department of Manpower, and visiting trade schools/technical colleges.

TABLE 4.2 PERCENTAGE OF ORGANIZATIONS USING DIFFERENT RECRUITMENT STRATEGIES ACCORDING TO SIZE OF ORGANIZATION

RECRUITMENT STRATEGY	NUMBER OF EMPLOYEES				
	Under 10	10-50	50-200	200-1000	1000+
Ads in "Opportunities"	5,7	0,6	4,0	5,8	16,4
Ads in daily newspapers	22,9	17,3	21,6	43,5	52,7
Ads in magazines	1,4	1,2	0,0	4,5	16,4
Ads in weekly newspapers	10,0	9,8	10,4	16,9	32,7
Visit schools	5,7	4,0	10,4	14,3	23,6
Distribute brochures schools	0,0	1,2	2,4	7,1	25,5
Encouraging pupil visits	2,9	2,3	4,8	9,7	26,4
Unsolicited applications	32,9	37,0	46,4	37,7	47,3
Word of mouth	47,1	53,8	48,8	43,5	40,9
Use employment agency	0,0	1,2	4,8	3,9	4,5
Selected from within	0,0	1,2	5,6	15,6	12,7
Referrals from Manpower	4,3	5,2	7,2	5,2	0,0
Visit trade schools	2,9	1,7	6,4	7,8	4,5
Referrals from industry	5,7	4,0	10,4	10,4	0,9
N completing from each size category	70	173	125	154	110

KEY Ads in "Opportunities":	Advertisements in "Opportunities for School Leavers"
Ads in daily newspapers:	Advertisements in daily newspapers
Ads in magazines:	Advertisements in magazines
Ads in weekly newspapers:	Advertisements in weekly newspapers
Distribute brochures schools:	Distribute brochures to schools
Encouraging pupil visits:	Encourage pupils to visit the organization
Selected from within:	Selected from within company
Referrals from Manpower:	Referrals from the Dept. of Manpower
Visit trade schools:	Visit trade schools and technical colleges
Referrals from industry:	Referrals from industry board

Note. Percentages are calculated from column totals for each size industry. Figures in the table represent the percentage of organizations of that size indicating that they use that particular recruitment method.

Organizations with under 200 employees use word of mouth and unsolicited applications much more frequently than other methods. In organizations with more than 200 employees, advertisements in daily newspapers become more frequently used. In organizations with between 200 and 1000 employees, advertisements in daily newspapers and word of mouth tie as the most frequently used methods (43,5%), followed by unsolicited applications. Advertisements in daily newspapers is the most commonly used recruitment method in organizations with over 1000 employees (52,7%), followed by unsolicited applications (47,3%), and word of mouth (40,9%). Larger organizations use many more recruitment methods than smaller companies. In fact 77 organizations reported using four or more methods. Of these, 38 employ more than 1000 people. Only seven had less than 50 employees.

From Table 4.3 it can be seen that organizations in the aerospace and coal mining industries, local authorities, and organizations in the "other" category use advertisements in daily newspapers more frequently than other methods. Advertisements in daily newspapers and unsolicited applications are methods most frequently used by companies in the tyre and rubber industry, while electricity supply companies rely mostly on advertisements in weekly newspapers and unsolicited applications.

Government institutions, and companies in the electrotechnic, mining (excluding coal) and transport industries rely predominantly on unsolicited applications to fill apprentice positions. Companies in the building and motor industries predominantly rely on both unsolicited applications and word of mouth. The printing, hairdressing, metal and sugar companies rely mainly on word of mouth when recruiting apprentices. This is the only method used by the single furniture company responding.

When asked which recruitment technique is most effective, 474 organizations responded. This information is detailed in Table 4.4. Information was not provided in the case of 159 organizations. Many respondents indicated that they could not identify a particular method as being more effective than others as they had not used more than one or two methods.

Advertisements in daily newspapers was chosen as the most effective method by the largest number of organizations (26,2%); word of mouth was endorsed by 24,1% of respondents.

These two recruitment methods are claimed to be more effective than unsolicited applications, although more companies rely on unsolicited applications than advertisements in daily newspapers. Presumably unsolicited applications are less effective because many applications may be received from persons totally unsuitable for the job, whereas newspaper advertisements, which outline more specific information about the job and qualifications, attract more suitable applicants.

TABLE 4.3 PERCENTAGE OF ORGANIZATIONS USING DIFFERENT RECRUITMENT STRATEGIES ACCORDING TO INDUSTRY

INDUSTRY	opp	d n	mag	w n	v sch	broch	pv	un a	w m	e a	in-c	d m	tech	ind	Total for Industry
Aerospace	0,0	60,0	40,0	0,0	20,0	20,0	20,0	0,0	40,0	0,0	0,0	0,0	0,0	0,0	5
Building	12,8	19,1	4,3	4,3	6,4	4,3	2,1	51,1	46,8	2,1	8,5	4,3	0,0	14,9	47
Elect. supply	26,3	31,6	5,3	42,1	36,8	26,3	26,3	52,6	36,8	0,0	10,5	5,3	5,3	10,5	19
Electrotechnic	0,0	18,2	0,0	9,1	0,0	0,0	9,1	54,5	36,4	9,1	27,3	0,0	0,0	9,1	11
Furniture	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	100,0	0,0	0,0	0,0	0,0	0,0	1
Govt. institutions	0,0	25,0	0,0	0,0	0,0	8,3	8,3	75,0	33,3	8,3	0,0	16,7	0,0	0,0	12
Hairdressing	5,8	27,5	1,4	13,0	5,8	0,0	2,9	31,9	53,6	0,0	0,0	2,9	2,9	4,3	69
Local authorities	0,0	70,8	12,5	50,0	8,3	8,3	4,2	29,2	25,0	12,5	8,3	0,0	0,0	0,0	24
Metal	3,6	30,2	4,3	15,1	15,8	12,2	10,8	34,5	46,0	2,2	7,9	7,9	6,5	7,2	139
Mining:coal	20,0	100,0	0,0	60,0	40,0	40,0	40,0	0,0	40,0	0,0	40,0	0,0	0,0	0,0	5
Mining:other	12,5	50,0	15,6	37,5	15,6	18,8	31,3	62,5	50,0	3,1	6,3	0,0	3,1	0,0	32
Motor	1,9	15,5	0,6	7,7	7,7	1,3	0,6	45,2	52,3	1,9	1,9	6,5	5,2	3,9	155
Printing	7,1	38,1	2,4	9,5	4,8	2,4	16,7	28,6	64,3	7,1	7,1	2,4	2,4	26,2	42
Sugar	16,7	33,3	0,0	16,7	50,0	16,7	0,0	33,3	66,7	0,0	33,3	0,0	16,7	0,0	6
Transport	10,0	40,0	0,0	10,0	10,0	20,0	0,0	50,0	10,0	0,0	0,0	0,0	20,0	0,0	10
Tyre & rubber	0,0	50,0	0,0	25,0	0,0	0,0	0,0	50,0	25,0	0,0	0,0	0,0	0,0	0,0	4
Other	7,5	46,3	8,8	20,0	13,8	5,0	12,5	37,5	38,8	5,0	23,8	1,3	8,8	1,3	80

KEY opp: Advertisements in "Opportunities for School Leavers"
d n: Advertisements in daily newspapers
mag: Advertisements in magazines
w n: Advertisements in weekly newspapers
v sch: Visit schools
broch: Distribute brochures to schools
p v: Encourage pupils to visit the organization
un a: Unsolicited applications
w m: Word of mouth
e a: Use employment agency
in-c: Selected from within company
d m: Referrals from Dept of Manpower
tech: Visit trade schools and technical colleges
ind: Referrals from industry board

Note. Right hand totals refer to the total number of organizations falling in that industry who indicated the recruitment strategies they use.

Percentages are calculated for each industry from this total.

Percentages reflect the percentage of organizations in that industry using that particular recruitment strategy.

TABLE 4.4 RECRUITMENT STRATEGY CLAIMED TO BE MOST EFFECTIVE

RECRUITMENT STRATEGY	N	% of 474
Advertisements in "Opportunities for School Leavers"	10	2,1
Advertisements in daily newspapers	124	26,2
Advertisements in magazines	4	0,8
Advertisements in weekly newspapers	27	5,7
Visit schools	43	9,1
Distribute brochures to schools	4	0,8
Encourage pupils to visit organization	3	0,6
Unsolicited applications	56	11,8
Word of mouth	114	24,1
Use employment agency	4	0,8
Selected from within company	18	3,8
Referrals from Dept of Manpower	14	3,0
Visit trade schools & technical colleges	31	6,5
Referrals from industry board	22	4,6

474

Advertisements in daily newspapers tend to be most highly rated by organizations with more than 1000 employees. Word of mouth is more frequently rated most effective by smaller organizations.

Although many organizations make use of word of mouth to recruit apprentices, this method is not necessarily the most effective way to recruit apprentices of all races if most of one's current employees/apprentices are white. Most prospective employees will be friends or relatives of current employees; this does not help to achieve a more equitable balance across the races. Advertising in newspapers, or any form of advertising, particularly if it is targeted towards underrepresented groups and specifies that applications are open to all irrespective of race or sex, is likely to achieve a more representative racial distribution among the applicants. In this respect it is encouraging to note that 14 respondent organizations reported placing advertisements in the Sowetan, a daily newspaper aimed at blacks.

4.2 PROBLEMS EXPERIENCED IN RECRUITMENT

Despite the country experiencing an economic recession at the time the organizations completed the survey, 94 respondents indicated that they were experiencing problems recruiting apprentices. This represents 14,6% of all respondents. A variety of different reasons for the difficulties were cited. In this regard it needs to be borne in mind that in the event of an economic upturn, recruitment difficulties

could well increase. One respondent specifically indicated that their organization had not experienced recruitment difficulties during the recession, but had during the previous economic upturn.

TABLE 4.5 TRADE CATEGORIES IN WHICH RECRUITMENT DIFFICULTIES ARE EXPERIENCED

TRADE CATEGORY	N
Maintenance mechanics	17
Turning & machining	15
Electrical (H C)	13
Fitting	10
Boilermaking/welding/plating	8
Diesinking/pressing/engraving	6
Instrument mechanics	6
Carpentry/woodwork	6
Hairdressing	5
Rigging	5
Moulding	3
Machine minding	3
Trimming/upholstering	1

It can be seen from Table 4.5 that the most frequently mentioned trade category in which respondents are experiencing recruitment difficulties is maintenance mechanics; turning/machining and electrical (H C) are (respectively) the second and third most frequently mentioned categories. It must be remembered, however, that many more of the responding organizations employ maintenance mechanics and electricians than riggers or moulders, which are less frequently endorsed.

Several reasons for experiencing problems were given. Of the 94 organizations indicating recruitment problems, 29 (30,9%) said they are having difficulty in finding applicants who meet the minimum requirements and have sufficient ability. Fourteen (14,9%) indicated that the trade seems to have a poor image, i.e. is seen as dirty and "unglamorous". Most frequently mentioned trades in this regard are motor mechanics and plating; organizations indicated that prospective apprentices with the necessary qualifications prefer electronics and instrumentation. Ten organizations (10,6%) said the trade in question is relatively unknown. The trade most often mentioned in this regard was rigging.

According to 112 organizations (17,4% of the sample), increased trade sophistication as a result of technological advancement has affected apprentice recruitment. The larger organizations were more likely to endorse this option. A low 6,8% of organizations with less than 10 employees indicated that increasing technological developments had affected recruitment. Of those organizations with more than 1000

employees, 25,2% responded that technological advancement has affected apprentice recruitment. Across all five size categories used in this survey, the finding is that as the organizations increase in size, so does the percentage of organizations within that size category indicating that technological developments are affecting apprentice recruitment. One possible reason for this may be that smaller organizations are not able to keep up with latest developments in the field as easily as larger organizations. It could also be the case that those organizations most likely to be affected by technological advancement employ many people.

In Table 4.6, the number and percentages of organizations which responded positively to the question on trade sophistication and recruitment are shown for each industry. Local authorities, electricity supply, coal mining, transport and electrotechnic industries endorsed the positive option to a greater extent than the other industries. The only respondent from the furniture industry also indicated that increased trade sophistication as a result of technological advancement has affected recruitment. It should be noted that these industries indicating technological advances have affected recruitment more so than the other industries comprise large organizations.

TABLE 4.6 ORGANIZATIONS IN RESPECTIVE INDUSTRIES SAYING INCREASED TECHNOLOGICAL ADVANCEMENT HAS AFFECTED RECRUITMENT

INDUSTRY	N	%
Aerospace	0	0,0
Building	7	14,0
Elect. supply	6	31,6
Electrotechnic	3	27,3
Furniture	1	100,0
Govt. institutions	1	8,3
Hairdressing	8	11,6
Local authorities	7	29,2
Metal	25	17,9
Mining: coal	2	40,0
Mining: other	6	18,8
Motor	30	18,8
Printing	8	19,0
Sugar	0	0,0
Transport	3	30,0
Tyre & rubber	1	25,0
Other	8	9,6

Note. Percentages represent the percentage of organizations in that particular industry who indicated that their recruitment procedures had been affected by increasing technological advancement.

When asked how increased technological advancement has affected apprentice recruitment, the overwhelming majority of the 112 respondents, 74,3%, indicated they have raised minimum entrance requirements and/or are applying stricter selection methods. A small percentage, 5,5% said apprentices need more training in electronics, and 3,7% said that more time is needed for training.

In summary, it appears that many more organizations now insist on higher schooling qualifications. It also seems that many of the applicants with the requisite educational level who do enter an apprenticeship prefer the more "glamorous" trades such as the electrical and electronic trades, rather than maintenance mechanics. There also appear to be problems in recruiting apprentices for less well known trades such as rigging and moulding.

5. ADMISSION REQUIREMENTS

For most occupations, employers generally insist job applicants comply with certain admission requirements. Typical examples of criteria employers may apply include an applicant's age, level of education, work experience, and physical fitness. In this section of the report we will examine the admission criteria the sample of respondents mentioned they take into account when considering indenturing an apprentice.

5.1 GENERAL ADMISSION CRITERIA TAKEN INTO ACCOUNT WHEN CONSIDERING EMPLOYING AN APPRENTICE

In Table 5.1 the criteria are listed which organizations claim they take into account when considering appointing an apprentice.

The most frequently cited requirement is minimum schooling level: 87,2% of organizations take into account the educational standard attained by a prospective apprentice. Age is the second most frequently cited admission requirement considered by organizations (79,2%). Psychometric test scores are mentioned by 60,8% of organizations; 53,0% take area of residence into account when employing an apprentice.

Respondents ranked each of these admission criteria in order of importance. In Table 5.2 the numbers of organizations ranking each of the criteria as most important are listed. In some cases organizations ranked more than one of the criteria as most important.

The admission requirement most frequently rated as first in importance is minimum schooling level (endorsed by 44,1% of organizations). The next requirement most frequently rated as most important is psychometric test scores (14,1%), followed by sex (13,3%) and age (12,5%).

It appears that many organizations take the sex of an applicant into account (49,3%), and several rank it as most important when considering whether to indenture an apprentice (13,3%). Fewer, 28,1%, take race of applicant into account, 5,2% rate it as most important of admission criteria. It should be noted that organizations professing to consider an applicant's race and/or sex before appointment may not necessarily be concerned with excluding certain categories of people from employment. Companies with employment policies favouring the appointment of applicants of all races and both sexes may also consider criteria such as race and sex in order to implement policies such as quotas.

TABLE 5.1 CRITERIA TAKEN INTO ACCOUNT WHEN CONSIDERING EMPLOYING AN APPRENTICE

CRITERIA	N	% of 615
Age	487	79,2
Area of residence	326	53,0
Sex	303	49,3
Population group	173	28,1
Having driver's licence	130	21,1
Completion of army training	281	45,7
Parent/s employed in company	152	24,7
Parent/s occupation	75	12,2
Minimum schooling level	536	87,2
Entrance examination	168	27,3
Psychometric test scores *	374	60,8
Psychomotor test scores	28	4,6
Work sample test	92	15,0
Citizenship	3	0,5
Security clearance	3	0,5
Medical checkup	254	41,3
Appearance	12	2,0
Marital status	2	0,3
References	4	0,7
Interest in trade	20	3,3
Personality	19	3,1
Previous experience	11	1,8
Hobbies	4	0,7
Trial period	43	7,0
Other	15	2,4

Note. Information was missing for 29 organizations.

Percentages indicate the percentage of the 615 organizations responding to the question who said they made use of that particular admission requirement when selecting apprentices.

* Includes testing by external organizations such as the Department of Manpower.

From Table 5.3 it can be seen that very small organizations, with less than 10 employees, rely predominantly on age (78,1%), minimum schooling level (67,2%), and area where applicant resides (53%). Larger organizations, those with more than 1000 employees, also indicate age (85,2%), and minimum schooling level (93,5%) as important admission criteria, as well as psychometric test scores (91,7%). The importance attached to psychometric test results appears to increase as size of organization increases. This is also true of medical examinations as admission criteria.

TABLE 5.2 NUMBER OF ORGANIZATIONS RATING DIFFERENT CRITERIA AS MOST IMPORTANT

CRITERIA	N ranking no 1	% of 615
Age	77	12,5
Area of residence	28	4,6
Sex	82	13,3
Population group	32	5,2
Having driver's licence	10	1,6
Completion of army training	50	8,1
Parent/s employed in company	11	1,8
Parent/s occupation	2	0,3
Minimum schooling level	271	44,1
Entrance examination	40	6,5
Psychometric test scores	87	14,1
Psychomotor test scores	3	0,5
Work sample test	23	3,7
Citizenship	2	0,3
Security clearance	1	0,2
Medical checkup	7	1,1
Appearance	2	0,3
Marital status	0	0,0
References	1	0,2
Interest in trade	8	1,3
Personality	4	0,7
Previous experience	5	0,8
Hobbies	0	0,0
Trial period	5	0,8

In summary it appears that most organizations of all sizes take age and schooling into consideration before indenturing an apprentice, with minimum schooling level attained regarded as the single most important of the admission criteria. Psychometric test performance is the third most frequently mentioned requirement for the whole sample, succeeding schooling level and age in frequency of rating. Medical examinations and psychometric test scores, as well as age and schooling level feature prominently among the admission criteria considered by large organizations.

TABLE 5.3 ADMISSION CRITERIA CONSIDERED BY DIFFERENT SIZE ORGANIZATIONS

CRITERIA	NUMBER OF EMPLOYEES				
	Under 10	10-50	50-200	200-1000	1000+
Age	78,1	77,6	74,4	80,8	85,2
Area of residence	53,1	52,4	54,5	48,3	58,3
Sex	29,7	50,6	55,4	50,3	50,9
Population group	26,6	35,3	27,3	21,2	28,7
Having driver's licence	10,9	32,9	31,4	11,9	10,2
Completion of army training	20,3	54,7	51,2	43,7	43,5
Parent/s employed in company	0,0	13,5	22,3	31,1	50,9
Parent/s occupation	4,7	12,4	17,4	9,3	14,8
Minimum schooling level	67,2	84,1	87,6	94,0	93,5
Entrance examination	15,6	26,5	24,0	28,5	38,0
Psychometric test scores	28,1	41,2	55,4	78,8	91,7
Psychomotor test scores	1,6	0,6	3,3	8,6	8,3
Work sample test	29,7	12,4	11,6	15,9	13,0
Citizenship	0,0	0,0	0,0	0,0	2,8
Security clearance	0,0	0,0	0,8	0,7	0,9
Medical checkup	10,9	17,6	35,5	60,9	75,0
Appearance	4,7	2,4	1,7	1,3	0,9
Marital status	0,0	0,6	0,0	0,0	0,9
References	0,0	0,0	0,0	2,0	0,9
Interest in trade	3,1	2,4	2,5	2,0	7,4
Personality	1,6	4,7	3,3	1,3	3,7
Previous experience	1,6	0,0	4,1	1,3	2,8
Hobbies	1,6	0,0	0,0	0,7	1,9
Trial period	4,7	8,2	9,9	7,9	1,9
Other	3,1	0,6	3,3	3,3	2,8
Total N responding in each size category	64	170	121	151	108

Note. Figures in the table represent the percentage of companies of that size saying they consider that particular admission requirement when selecting apprentices. Percentages are calculated from totals at the bottom of the table.

5.2 MINIMUM SCHOOLING REQUIREMENTS FOR ADMISSION INTO AN APPRENTICESHIP

Many organizations have minimum schooling requirements for entry into trades. Most responding companies (87,2%) take the schooling level of a prospective apprentice into account, and 44,1% rate it as the most important of admission criteria, (see Tables 5.1 and 5.2).

Tables 5.4 - 5.7 list the minimum educational requirements which the organizations responding to this questionnaire indicated they set for admission as an apprentice. Each table contains data for a separate race group.

From these tables it is immediately apparent that many organizations are insisting on Std 10 for entry into an apprenticeship. For the electronics and instrument mechanic trade categories (marked with a double asterisk), the number of organizations insisting on Std 10 as an entry requirement is more than double the number requiring a Std 8 pass. This is true for all race groups.

Those trades marked with a single asterisk are those in which more organizations insist on Std 10 than Std 8 or below. Trades which fall into this category are compositing, diesinking/pressing/engraving and upholstering/trimming in the case of Asians and coloureds, compositing and diesinking/pressing/engraving for whites, and diesinking/pressing/engraving, upholstering/trimming and electrical (H C) for blacks.

Although for certain trade categories (e.g. bricklaying/plastering/tiling, carpentry/woodwork and painting/spraypainting) low school qualifications may be acceptable, organizations generally insist on at least a Std 8 level of schooling.

The total number of organizations (summed across all trade categories) indicating given minimum schooling requirements can be seen from the totals at the bottom of Tables 5.4 - 5.7. The percentages at the bottom of each of these tables indicate the percentage of organizations across all trade categories insisting on that particular schooling level as minimum for entry into an apprenticeship. A comparison of these percentages for the different races shows that there is a slight tendency to accept lower schooling levels for prospective white apprentices. For whites, 61,8% of companies are happy to accept Std 8 or below; for coloureds the figure is 60,0%; for Asians 58,1% ; and for blacks 57,4%.

Organizations were asked if in the last two years they had found it necessary to raise schooling entry requirements for some or all of their trades. Affirmative responses were obtained from 219 organizations, 34,0% of the sample.

The raising of schooling levels has occurred most in the electrotechnic, sugar, transport, metal, motor, printing, and coal mining industries. This information is tabulated in Table 5.8. The value for the electrotechnic industry is not as high as one might expect from data in Tables 5.4 - 5.7, but that might be because organizations in this industry raised the entry requirements more than two years ago. (Some in fact indicated this.)

TABLE 5.4 MINIMUM SCHOOLING REQUIREMENTS FOR TRADE CATEGORIES:
PERCENTAGE OF ORGANIZATIONS SETTING EACH REQUIREMENT
FOR ASIANS

TRADE CATEGORY	STANDARD						Total
	6-	7	8	9	10	P-S	
Bookbinding/ruling	0,0	0,0	50,0	0,0	50,0	0,0	4
Bricklaying	0,3	16,7	75,0	0,0	0,0	0,0	12
Carpentry/woodwork	3,4	17,2	58,6	6,9	13,8	0,0	29
Compositing *	0,0	0,0	45,5	0,0	54,5	0,0	11
Diesinking *	0,0	0,0	40,0	4,0	56,0	0,0	25
Electrical (h c)	0,0	2,3	48,1	9,8	39,8	0,0	133
Electronics **	0,0	0,0	0,0	0,0	100,0	0,0	6
Electroplating	0,0	0,0	0,0	0,0	0,0	0,0	0
Fitting	0,0	2,7	57,5	13,7	26,0	0,0	73
Hairdressing	0,0	11,1	77,8	0,0	11,1	0,0	9
Instrument mechanics **	0,0	0,0	15,2	6,1	78,8	0,0	33
Machine minding	0,0	0,0	52,4	4,8	42,9	0,0	21
Machine & toolsetting	0,0	0,0	0,0	0,0	0,0	0,0	0
Maintenance mechanics	0,0	1,1	53,3	7,6	35,9	2,2	92
Metalworking	0,0	9,1	63,6	9,1	15,2	3,0	33
Moulding	0,0	20,0	60,0	0,0	20,0	0,0	5
Painting/spraypainting	0,0	16,7	58,3	8,3	16,7	0,0	12
Plastics & fibreglass	0,0	0,0	0,0	0,0	0,0	0,0	0
Radio/radar/comm.	0,0	0,0	0,0	0,0	0,0	0,0	0
Rigging	0,0	23,1	76,9	0,0	0,0	0,0	13
Turning/machining	0,0	3,4	53,4	6,8	36,4	0,0	88
Upholstering/trimming *	0,0	0,0	0,0	0,0	100,0	0,0	1
Welding/plating/	0,0	10,8	64,6	3,1	21,5	0,0	65
Other	0,0	0,0	100,0	0,0	0,0	0,0	2
Total	2	33	353	48	228	3	667
Percentage	0,3	4,9	52,9	7,2	34,2	0,4	

KEY 6-: Std 6 and under
P-S: Post school training at technical college

TABLE 5.5 MINIMUM SCHOOLING REQUIREMENTS FOR TRADE CATEGORIES:
PERCENTAGE OF ORGANIZATIONS SETTING EACH REQUIREMENT
FOR BLACKS

TRADE CATEGORY	STANDARD						Total
	6-	7	8	9	10	P-S	
Bookbinding/ruling	0,0	0,0	66,7	0,0	33,3	0,0	3
Bricklaying	20,0	20,0	53,3	0,0	6,7	0,0	15
Carpentry/woodwork	5,1	15,4	53,8	5,1	20,5	0,0	39
Compositing	0,0	0,0	50,0	0,0	50,0	0,0	10
Diesinking *	0,0	0,0	37,5	3,1	59,4	0,0	32
Electrical (h c) *	0,0	1,3	44,0	8,2	46,5	0,0	159
Electronics **	0,0	0,0	0,0	0,0	100,0	0,0	7
Electroplating	0,0	0,0	0,0	0,0	0,0	0,0	0
Fitting	0,0	2,3	59,3	11,6	26,7	0,0	86
Hairdressing	0,0	10,0	80,0	0,0	10,0	0,0	10
Instrument mechanics **	0,0	0,0	17,8	4,4	77,8	0,0	45
Machine minding	0,0	0,0	52,6	5,3	42,1	0,0	19
Machine & toolsetting	0,0	0,0	0,0	0,0	0,0	0,0	0
Maintenance mechanics	1,0	1,0	56,7	6,7	32,7	1,9	104
Metalworking	0,0	11,1	63,9	5,6	16,7	2,8	36
Moulding	0,0	20,0	40,0	0,0	40,0	0,0	5
Painting/spraypainting	0,0	18,2	63,6	9,1	9,1	0,0	11
Plastics & fibreglass	0,0	0,0	0,0	0,0	0,0	0,0	0
Radio/radar/comm.	0,0	0,0	0,0	0,0	0,0	0,0	0
Rigging	0,0	15,0	85,0	0,0	0,0	0,0	20
Turning/machining	0,0	2,9	51,9	5,8	39,4	0,0	104
Upholstering/trimming *	0,0	0,0	0,0	0,0	100,0	0,0	1
Welding/plating/	0,0	7,4	66,7	3,7	22,2	0,0	81
Other	0,0	0,0	100,0	0,0	0,0	0,0	2
Total	6	34	413	48	285	3	789
Percentage	0,8	4,3	52,3	6,1	36,1	0,4	

The following trade categories have been abbreviated in Tables 5.4 to 5.7. Bricklaying includes bricklaying, plastering and tiling. Diesinking includes diesinking, pressing and engraving. Radio/ radar/comm. includes radio, radar and communications, and the trade category welding/plating incorporates welding, plating and boilermaking.

TABLE 5.6 MINIMUM SCHOOLING REQUIREMENTS FOR TRADE CATEGORIES:
PERCENTAGE OF ORGANIZATIONS SETTING EACH REQUIREMENT
FOR COLOURED

TRADE CATEGORY	STANDARD						Total
	6-	7	8	9	10	P-S	
Bookbinding/ruling	0,0	0,0	40,0	20,0	40,0	0,0	5
Bricklaying	12,5	25,0	62,5	0,0	0,0	0,0	16
Carpentry/woodwork	4,9	19,5	51,2	7,3	17,1	0,0	41
Compositing *	0,0	0,0	41,7	0,0	58,3	0,0	12
Diesinking *	0,0	0,0	37,5	3,1	59,4	0,0	32
Electrical (h c)	0,0	1,4	50,0	8,7	39,9	0,0	138
Electronics **	0,0	0,0	0,0	0,0	100,0	0,0	6
Electroplating	0,0	0,0	0,0	0,0	0,0	0,0	0
Fitting	0,0	2,6	60,3	11,5	25,6	0,0	78
Hairdressing	11,1	16,7	66,7	0,0	5,6	0,0	18
Instrument mechanics **	0,0	0,0	17,6	5,9	76,5	0,0	34
Machine minding	0,0	4,2	45,8	16,7	33,3	0,0	24
Machine & toolsetting	0,0	0,0	0,0	0,0	0,0	0,0	0
Maintenance mechanics	0,0	2,0	53,9	8,8	33,3	2,0	102
Metalworking	0,0	13,2	57,9	10,5	15,8	2,6	38
Moulding	0,0	16,7	50,0	0,0	33,3	0,0	6
Painting/spraypainting	0,0	28,6	57,1	7,1	7,1	0,0	14
Plastics & fibreglass	0,0	0,0	100,0	0,0	0,0	0,0	1
Radio/radar/comm.	0,0	0,0	100,0	0,0	0,0	0,0	1
Rigging	0,0	20,0	80,0	0,0	0,0	0,0	15
Turning/machining	0,0	3,1	57,3	6,3	33,3	0,0	96
Upholstering/trimming *	0,0	0,0	0,0	0,0	100,0	0,0	1
Welding/plating/	0,0	10,0	64,3	2,9	22,9	0,0	70
Other	0,0	0,0	100,0	0,0	0,0	0,0	2
Total	6	45	399	54	243	3	750
Percentage	0,8	6,0	53,2	7,2	32,4	0,4	

TABLE 5.7 MINIMUM SCHOOLING REQUIREMENTS FOR TRADE CATEGORIES:
PERCENTAGE OF ORGANIZATIONS SETTING EACH REQUIREMENT
FOR WHITES

TRADE CATEGORY	STANDARD						Total
	6-	7	8	9	10	P-S	
Bookbinding/ruling	0,0	0,0	40,0	20,0	40,0	0,0	5
Bricklaying	5,6	22,2	72,2	0,0	0,0	0,0	18
Carpentry/woodwork	3,6	14,5	60,0	5,5	16,4	0,0	55
Compositing *	0,0	0,0	40,0	0,0	60,0	0,0	15
Diesinking *	0,0	0,0	44,6	3,6	51,8	0,0	56
Electrical (H C)	0,0	1,8	47,2	7,3	43,1	0,5	218
Electronics **	0,0	0,0	18,8	0,0	75,0	6,3	16
Electroplating	0,0	0,0	100,0	0,0	0,0	0,0	1
Fitting	0,0	3,0	60,4	9,9	26,7	0,0	101
Hairdressing	0,0	3,6	83,9	0,0	12,5	0,0	56
Instrument mechanics**	0,0	0,0	16,7	3,7	79,6	0,0	54
Machine minding	0,0	6,5	54,8	9,7	29,0	0,0	31
Machine & toolsetting	0,0	0,0	100,0	0,0	0,0	0,0	1
Maintenance mechanics	0,0	1,6	58,3	6,3	30,2	3,6	192
Metalworking	1,5	13,6	65,2	4,5	13,6	1,5	66
Moulding	0,0	12,5	62,5	0,0	25,0	0,0	8
Painting/spraypainting	11,8	17,6	58,8	5,9	5,9	0,0	17
Plastics & fibreglass	0,0	0,0	100,0	0,0	0,0	0,0	1
Radio/radar/comm.	0,0	0,0	50,0	0,0	50,0	0,0	4
Rigging	0,0	14,3	85,7	0,0	0,0	0,0	21
Turning/machining	0,0	2,7	60,5	6,8	28,6	1,4	147
Upholstering/trimming	0,0	0,0	50,0	0,0	50,0	0,0	2
Welding/plating/	1,0	8,8	68,6	2,0	18,6	1,0	102
Other	0,0	0,0	66,7	0,0	33,3	0,0	3
Total	7	55	674	65	376	13	1190
Percentage	0,6	4,6	56,6	5,5	31,6	1,1	

Note. In Tables 5.4 to 5.7, with the exception of all totals and percentages at the bottom of each table, figures represent the percentage of all organizations within that trade category listing that particular schooling standard as minimum for entry into an apprenticeship. See appendix A for a full list of the trades comprising the various trade categories mentioned in these tables.

TABLE 5.8 INDUSTRIES SAYING THEY HAD RAISED SCHOOLING REQUIREMENTS IN THE LAST TWO YEARS

INDUSTRY	"Yes" responses	%
Aerospace	1	20,0
Building	16	32,0
Elect. supply	6	31,6
Electrotechnic	4	36,4
Furniture	0	0,0
Govt. institutions	3	25,0
Hairdressing	21	30,4
Local authorities	7	29,2
Metal	55	39,3
Mining:coal	4	80,0
Mining:other	10	31,3
Motor	55	34,4
Printing	16	38,1
Sugar	3	50,0
Transport	5	50,0
Tyre & rubber	1	25,0
Other	24	28,9

Note. Entries in the percentage column indicate the percentage of organizations in that particular industry claiming to have raised schooling entry requirements.

Applicants listed by organizations as having had to meet higher entry requirements in the past two years include those applying to become: electricians; motor mechanics; instrument mechanics; fitters & turners; auto-electricians; fitters; tool, jig & diemakers; carpenters; hairdressers; boilermakers; refrigeration mechanics; electronics; turners; and diesel mechanics.

In Table 5.9 the reasons respondents gave for having raised minimum schooling levels in the past two years are documented. "Recession" was cited by some organizations as a reason for raising entry requirements because a greater number of applicants are available in a recession. This enables organizations to select applicants with higher schooling levels. The reason "Better quality applicants" means that the organization wants to indenture apprentices with higher school standards to obtain better performance on the job.

TABLE 5.9 REASONS FOR RAISING MINIMUM SCHOOLING LEVELS

REASONS	N	% of 213
Technological advances (only)	147	69,0
Recession (only)	14	6,6
Technological advances and recession	15	7,0
Better quality applicants (only)	17	8,0
Tech. advances and better quality applicants	12	5,6
Other	8	3,8
	213	

From Table 5.9, it can clearly be seen that most respondents indicated that technological advances are responsible for minimum schooling entry requirements having been raised. The percentage of respondents endorsing technological advances alone is 69%, while an additional 12,6% listed technological advances in conjunction with another reason.

In Table 5.10 the data are split up according to industry.

From the first column we can see that, with the exception of the building industry, at least 50,% of reasons given are due to technological advances alone. The aerospace, electricity supply, electrotechnic, and tyre and rubber industries listed technological advances as their only reason for raising schooling standards. For all industries, including the building industry, technological advancement is the most frequently mentioned reason for raising entry requirements.

Thus it is apparent from the survey that many organizations are now insisting that prospective apprentices have completed higher levels of education than their predecessors, particularly in trades most affected by technological advances. The effect of advances in technology can also be seen in chapter 4 where it was noted that 17,4% of respondents indicated that technological advancement is affecting recruitment.

TABLE 5.10 REASONS FOR RAISING ENTRY REQUIREMENTS: DATA SUBDIVIDED
ACCORDING TO INDUSTRY

INDUSTRY	REASONS						Total
	Tech	T+R	T+Q	Rec	Quality	Other	
Aerospace	100,0	0,0	0,0	0,0	0,0	0,0	1
Building	37,5	6,3	6,3	12,5	31,3	6,3	16
Elect. supply	100,0	0,0	0,0	0,0	0,0	0,0	6
Electrotechnic	100,0	0,0	0,0	0,0	0,0	0,0	4
Furniture	0,0	0,0	0,0	0,0	0,0	0,0	0
Govt. institutions	66,7	33,3	0,0	0,0	0,0	0,0	3
Hairdressing	88,2	0,0	5,9	5,9	0,0	0,0	17
Local authorities	71,4	14,3	0,0	14,3	0,0	0,0	7
Metal	63,0	5,6	13,0	7,4	9,3	1,9	54
Mining:coal	50,0	0,0	0,0	25,0	25,0	0,0	4
Mining:other	50,0	10,0	10,0	20,0	10,0	0,0	10
Motor	85,2	3,7	1,9	0,0	3,7	5,6	54
Printing	50,0	18,8	6,3	12,5	6,3	6,3	16
Sugar	66,7	0,0	0,0	0,0	0,0	33,3	3
Transport	80,0	20,0	0,0	0,0	0,0	0,0	5
Tyre & rubber	100,0	0,0	0,0	0,0	0,0	0,0	1
Other	62,5	8,3	4,2	8,3	12,5	4,2	24

KEY: Tech: Technological advances only
T+R: Technological advances and recession
T+Q: Technological advances and better quality applicants
Rec: Recession only
Quality: Better quality applicants only

Note. Figures in the table (excluding totals) represent the percentage of organizations in that industry citing that reason for raising entry requirements. Percentages are calculated for each industry from the right hand totals.

5.3 COMPULSORY SCHOOL SUBJECTS

In this section we will very briefly look at compulsory school subjects required for apprenticeship in different trades.

The percentage of organizations requiring that the applicant has studied certain school subjects is listed for the different trade categories in Tables 5.11 - 5.14. Each race group is dealt with in a separate table. In Tables 5.11 - 5.14 it can be seen that most of the responding organizations insist on both mathematics and science as compulsory school subjects for all trade categories.

TABLE 5.11 COMPULSORY SCHOOL SUBJECTS FOR ENTRY INTO AN APPRENTICESHIP IN DIFFERENT TRADE CATEGORIES: ASIANS

TRADE CATEGORY	SCHOOL SUBJECTS				
	Maths	Science	M&S	Other	Total
Bookbinding/ruling	0,0	0,0	75,0	25,0	4
Bricklaying	16,7	0,0	66,7	16,7	6
Carpentry/woodwork	5,3	0,0	89,5	5,3	19
Compositing	25,0	0,0	62,5	12,5	8
Diesinking	26,1	4,3	65,2	4,3	23
Electrical (h c)	21,0	0,0	79,0	0,0	124
Electronics	0,0	0,0	100,0	0,0	7
Electroplating	0,0	0,0	0,0	0,0	0
Fitting	17,8	0,0	82,2	0,0	73
Hairdressing	0,0	0,0	0,0	100,0	2
Instrument mechanics	8,8	0,0	91,2	0,0	34
Machine minding	27,8	0,0	72,2	0,0	18
Machine & toolsetting	0,0	0,0	0,0	0,0	0
Maintenance mechanics	20,5	2,7	74,0	2,7	73
Metalworking	15,0	0,0	75,0	10,0	20
Moulding	0,0	0,0	100,0	0,0	3
Painting/spraypainting	33,3	16,7	50,0	0,0	6
Plastics & fibreglass	0,0	0,0	0,0	0,0	0
Radio/radar/comm.	0,0	0,0	0,0	0,0	0
Rigging	0,0	0,0	100,0	0,0	11
Turning/machining	16,0	0,0	82,7	1,2	81
Upholstering/trimming	0,0	0,0	100,0	0,0	1
Welding/plating/	25,0	0,0	73,3	1,7	60
Other	0,0	0,0	100,0	0,0	1
Total	105	4	452	13	574
Percentage	18,3	0,7	78,7	2,3	

TABLE 5.12 COMPULSORY SCHOOL SUBJECTS FOR ENTRY INTO AN APPRENTICESHIP IN DIFFERENT TRADE CATEGORIES: BLACKS

TRADE CATEGORY	SCHOOL SUBJECTS				
	Maths	Science	M&S	Other	Total
Bookbinding/ruling	0,0	0,0	66,7	33,3	3
Bricklaying	37,5	0,0	50,0	12,5	8
Carpentry/woodwork	24,1	0,0	72,4	3,4	29
Compositing	28,6	0,0	57,1	14,3	7
Diesinking	30,0	3,3	63,3	3,3	30
Electrical (h c)	21,1	0,0	78,9	0,0	152
Electronics	0,0	0,0	100,0	0,0	8
Electroplating	0,0	0,0	0,0	0,0	0
Fitting	19,8	0,0	80,2	0,0	86
Hairdressing	0,0	0,0	0,0	100,0	3
Instrument mechanics	10,9	0,0	89,1	0,0	46
Machine minding	31,3	0,0	68,8	0,0	16
Machine & toolsetting	0,0	0,0	0,0	0,0	0
Maintenance mechanics	22,6	1,2	75,0	1,2	84
Metalworking	30,4	0,0	60,9	8,7	23
Moulding	0,0	0,0	100,0	0,0	4
Painting/spraypainting	33,3	16,7	50,0	0,0	6
Plastics & fibreglass	0,0	0,0	0,0	0,0	0
Radio/radar/comm.	0,0	0,0	0,0	0,0	0
Rigging	16,7	0,0	83,3	0,0	18
Turning/machining	20,2	0,0	78,8	1,0	99
Upholstering/trimming	0,0	0,0	100,0	0,0	1
Welding/plating/	26,3	0,0	72,4	1,3	76
Other	0,0	0,0	100,0	0,0	1
Total	151	3	533	13	700
Percentage	21,6	0,4	76,1	1,9	

The following trade categories have been abbreviated. Bricklaying includes bricklaying, plastering and tiling. Diesinking includes diesinking, pressing and engraving. Radio/radar/comm. includes radio, radar and communications, and the trade category welding/plating incorporates welding, plating and boilermaking.

TABLE 5.13 COMPULSORY SCHOOL SUBJECTS FOR ENTRY INTO AN APPRENTICESHIP IN DIFFERENT TRADE CATEGORIES: COLOUREDS

TRADE CATEGORY	SCHOOL SUBJECTS				
	Maths	Science	M&S	Other	Total
Bookbinding/ruling	0,0	0,0	80,0	20,0	5
Bricklaying	44,4	0,0	44,4	11,1	9
Carpentry/woodwork	21,4	0,0	75,0	3,6	28
Compositing	22,2	0,0	66,7	11,1	9
Diesinking	26,7	3,3	63,3	6,7	30
Electrical (h c)	22,9	0,0	77,1	0,0	131
Electronics	0,0	0,0	100,0	0,0	7
Electroplating	0,0	0,0	0,0	0,0	0
Fitting	19,2	0,0	80,8	0,0	78
Hairdressing	0,0	28,6	0,0	71,4	7
Instrument mechanics	8,6	0,0	91,4	0,0	35
Machine minding	25,0	5,0	70,0	0,0	20
Machine & toolsetting	0,0	0,0	0,0	0,0	0
Maintenance mechanics	24,7	2,4	70,6	2,4	85
Metalworking	26,1	0,0	65,2	8,7	23
Moulding	0,0	0,0	100,0	0,0	4
Painting/spraypainting	25,0	12,5	62,5	0,0	8
Plastics & fibreglass	100,0	0,0	0,0	0,0	1
Radio/radar/comm.	100,0	0,0	0,0	0,0	1
Rigging	0,0	0,0	100,0	0,0	13
Turning/machining	20,5	0,0	78,4	1,1	88
Upholstering/trimming	0,0	0,0	100,0	0,0	1
Welding/plating/	24,2	0,0	74,2	1,5	66
Other	0,0	0,0	100,0	0,0	1
Total	138	7	488	17	650
Percentage	21,2	1,1	75,1	2,6	

KEY M&S: Maths and science

TABLE 5.14 COMPULSORY SCHOOL SUBJECTS FOR ENTRY INTO AN APPRENTICESHIP IN DIFFERENT TRADE CATEGORIES: WHITES

TRADE CATEGORY	SCHOOL SUBJECTS				
	Maths	Science	M&S	Other	Total
Bookbinding/ruling	0,0	0,0	80,0	20,0	5
Bricklaying	50,0	0,0	41,7	8,3	12
Carpentry/woodwork	26,2	0,0	69,0	4,8	42
Compositing	18,2	0,0	72,7	9,1	11
Diesinking	31,4	3,9	60,8	3,9	51
Electrical (h c)	23,7	0,0	75,3	1,0	198
Electronics	18,8	0,0	81,3	0,0	16
Electroplating	100,0	0,0	0,0	0,0	1
Fitting	20,6	0,0	79,4	0,0	97
Hairdressing	6,9	27,6	17,2	48,3	29
Instrument mechanics	11,1	0,0	88,9	0,0	54
Machine minding	18,5	3,7	77,8	0,0	27
Machine & toolsetting	100,0	0,0	0,0	0,0	1
Maintenance mechanics	26,9	1,9	67,9	3,2	156
Metalworking	26,1	0,0	60,9	13,0	46
Moulding	20,0	0,0	80,0	0,0	5
Painting/spraypainting	37,5	12,5	37,5	12,5	8
Plastics & fibreglass	100,0	0,0	0,0	0,0	1
Radio/radar/comm.	25,0	0,0	75,0	0,0	4
Rigging	16,7	0,0	83,3	0,0	18
Turning/machining	20,9	0,0	78,3	0,8	129
Upholstering/trimming	50,0	0,0	50,0	0,0	2
Welding/plating/	25,0	0,0	73,9	1,1	92
Other	50,0	0,0	50,0	0,0	2
Total	235	15	720	37	1007
Percentage	23,3	1,5	71,5	3,7	

Note. In Tables 5.11 to 5.14, with the exception of all totals and the percentages at the bottom of the tables, figures represent the percentage of organizations in that trade category insisting on particular schooling subjects.
See appendix A for a full list of trades comprising the various trades categories mentioned in these tables.

Not surprisingly hairdressing is the only trade category where most responding organizations do not insist on mathematics, science, or both mathematics and science. Some hairdressing salons do seem to insist on science though, presumably because of chemical advances in hair products.

Across all trade categories, excepting hairdressing, most companies insist on both mathematics and science for Asians, blacks, and coloureds. For whites, organizations are more, or equally likely, to accept mathematics only, as opposed to mathematics and science in the trade categories of bricklaying/plastering/tiling, painting/spraypainting, and upholstering/trimming. A few employers of apprentices indicated they insist on both mathematics and science subjects for prospective non-white but not for white apprentices.

6. SELECTION PROCEDURES

6.1 SELECTION METHODS IN GENERAL

Many different methods exist which organizations can use to select apprentices from available applicants. Prospective employees may be required to fill in applications forms, write psychometric tests, undergo an interview, or perform a task similar to one needed for effective work on the job. Organizations differ in the methods they utilize, as well as the formality with which methods are applied. The first section of this chapter on selection procedures will look at general procedures used by respondents for selecting apprentices. Following this section attention will be focused on some specific selection methods.

In Table 6.1 selection procedures respondent organizations indicated using when considering a prospective apprentice are listed. Tables 6.2 and 6.3 contain this information subdivided according to size of organization and industry respectively.

TABLE 6.1 NUMBER OF ORGANIZATIONS MAKING USE OF DIFFERENT SELECTION PROCEDURES

SELECTION PROCEDURES	N	% of 641
Application forms	426	66,5
Interviews	628	98,0
Psychometric tests	383	59,8
Psychomotor tests	28	4,4
Work sample tests	92	14,4
Medical examinations	260	40,6
Security clearance	7	1,1
Trial period	45	7,0
References	7	1,1
Interest questionnaires	1	0,2
Discussions with parents	2	0,3

Note. Three organizations did not indicate using any of the above techniques.

Percentages are calculated from the remaining 641 who did complete the question.

* Psychometric testing includes testing of prospective apprentices by external organizations such as the Department of Manpower.

Not unexpectedly 98% of the organizations responded that they use interviews: this is the most frequently mentioned technique for selecting apprentices. Application forms are used with the second greatest frequency (66,5%), followed by psychometric tests (59,8%).

TABLE 6.2 PERCENTAGE OF ORGANIZATIONS USING DIFFERENT SELECTION METHODS AS PER SIZE OF ORGANIZATION

SELECTION PROCEDURES	NUMBER OF EMPLOYEES				
	Under 10	10-50	50-200	200-1000	1000+
Application forms	13,7	46,3	71,2	89,6	95,5
Interviews	97,3	98,3	96,8	98,7	98,2
Psychometric tests	27,4	40,7	55,2	78,6	90,1
Psychomotor tests	1,4	0,6	3,2	8,4	8,1
Work sample tests	26,0	11,9	11,2	15,6	12,6
Medical examination	9,6	17,5	36,0	60,4	74,8
Security clearance	0,0	0,0	1,6	1,3	2,7
Trial period	4,1	7,9	11,2	7,8	1,8
References	0,0	0,0	1,6	1,9	1,8
Interest questionnaires	0,0	0,0	0,0	0,0	0,9
Discussions with parents	0,0	0,6	0,0	0,6	0,0
Total N responding in each size category	73	177	125	154	111

Note. Figures in the table represent the percentage of organizations of that size, who indicated using that particular selection method.

For two of the three most commonly used techniques (application forms and psychometric tests) as well as for medical examinations, frequency of use increases as the number of employees in the organization increases. Interviews are used by almost all organizations, irrespective of number of employees. In organizations with less than 10 employees, only interviews are used by more than 50% of respondents. This also applies to organizations with between 10 and 50 employees, although the frequency of use of application forms and psychometric tests increases to above 40%. Over 90% of organizations with more than 1000 employees report using application forms, interviews and psychometric tests as part of their selection procedure. This one would expect: larger organizations are more likely to have formalized, rigorous selection policies.

Work sample tests seem to be most frequently used by organizations with under 10 employees, and a trial period seems most commonly used by the middle category (organizations of between 50 and 200 employees). Psychomotor tests, although seldom used for selection, are more likely to form part of apprentice selection for large organizations (more than 200 employees).

TABLE 6.3 SELECTION PROCEDURES USED BY THE DIFFERENT INDUSTRIES

INDUSTRY	SELECTION METHODS							N
	A F	Int	P1	P2	W S	Med	Trial	
Aerospace	100,0	100,0	80,0	0,0	0,0	80,0	0,0	5
Building	46,0	96,0	68,0	2,0	10,0	24,0	12,0	50
Elect. supply	78,9	100,0	84,2	5,3	5,3	63,2	5,3	19
Electrotechnic	72,7	100,0	45,5	0,0	27,3	18,2	9,1	11
Furniture	100,0	100,0	100,0	0,0	0,0	0,0	0,0	1
Govt. institutions	91,7	100,0	50,0	0,0	8,3	66,7	0,0	12
Hairdressing	20,3	97,1	21,7	1,4	26,1	8,7	7,2	69
Local authorities	95,8	100,0	83,3	8,3	8,3	79,2	0,0	24
Metal	75,7	96,4	72,9	7,1	15,0	48,6	9,3	140
Mining:coal	100,0	100,0	100,0	20,0	0,0	100,0	0,0	5
Mining:other	93,8	93,8	93,8	9,4	15,6	81,3	0,0	32
Motor	58,9	98,7	43,0	1,3	10,8	19,0	7,0	158
Printing	70,7	100,0	63,4	2,4	9,8	53,7	22,0	41
Sugar	100,0	100,0	50,0	16,7	83,3	66,7	0,0	6
Transport	90,0	100,0	80,0	10,0	10,0	50,0	0,0	10
Tyre & rubber	100,0	100,0	75,0	0,0	25,0	100,0	0,0	4
Other	80,7	100,0	65,1	6,0	18,1	56,6	4,8	83

KEY A F: Application forms
 Int: Interviews
 P1: Psychometric tests
 P2: Psychomotor tests
 W S: Work sample tests
 Med: Medical examinations
 Trial: Trial period

Note. N equals the total number of organizations in that industry who indicated using any of the above selection methods.

Figures in the table represent the percentage of organizations in that industry using that particular selection method.

The building, motor, and hairdressing industries use application forms less frequently than the overall mean for the sample as a whole (i.e. below 66,5%). In every industry more than 90% of respondent organizations reported using interviews. More than 75% of respondents from the aerospace, electricity supply, mining, and transport industries, and local authorities, reported using psychometric tests. The only respondent from the furniture industry makes use of psychometric tests.

Use of work sample tests is most prevalent in organizations in the sugar industry (83,3%). The next highest frequencies are found in the

electrotechnic, hairdressing and tyre and rubber industries, with 27,3%, 26,1%, and 25% of companies respectively reporting using work sample tests. Organizations in the sugar and hairdressing industry reported using work sample tests more frequently than psychometric tests.

The highest usage of a trial period is in the printing industry (22.0% of organizations), followed by the building industry (12,0%).

In summary, the selection methods most frequently used appear to be application forms, interviews, and psychometric tests. Most organizations, irrespective of size and industry of major activity, reported interviewing prospective apprentices. As organizations increase in size, application forms, psychometric tests and medical examinations are more likely to be included in the selection procedure. Work sample testing seems to be a popular selection method amongst organizations in the sugar industry.

In the remainder of this chapter we will discuss some selection procedures in more detail.

6.2 APPLICATION FORMS

In the beginning of this chapter it was noted that application forms are used by many organizations for apprentice selection (66,5%). This is particularly true of larger organizations. Biographical information about applicants, such as educational and employment background and interests is obtained through these forms. Information of this kind can be used to identify those applicants who do not meet the minimum entry requirements. Application form information which respondent organizations believe to be useful in predicting training and job performance is listed in Table 6.4.

The majority of respondents felt schooling level is the most predictive of training performance, followed by school marks and post-school qualifications.

Job performance is felt to be best predicted by employment history (many apprentice applicants, however, come straight from school and will not have much employment experience). The respondents cited hobbies/interests and health as the second and third most useful predictors of job performance.

Both training and job performance are felt to be best predicted by, in order of rating, employment history, schooling level, hobbies/interests, school marks, school subjects and age.

In Table 6.5 information is provided as to how organizations felt biodata predicts across different races.

**TABLE 6.4 NUMBER OF ORGANIZATIONS INDICATING BIOGRAPHICAL INFORMATION
USEFUL IN PREDICTING TRAINING AND/OR JOB PERFORMANCE**

BIODATA	PERFORMANCE CRITERIA		
	Training	Job Perform	TR&JP
Schooling level	22	8	21
School marks	16	4	13
School subjects	10	3	12
Type of school (academic/technical)	6	1	5
Post-school qualifications	14	4	10
Employment history	6	19	24
Hobbies/interests	8	13	17
Health history	1	11	8
Age	8	4	12
Abilities/aptitude	6	2	8
Interest in job/company	3	1	4
Area of residence	8	3	1
Army completed	1	4	4
Home/family background	1	5	4

KEY Job Perform : Job performance

Tr&JP : Training and job performance

Note. Only 127 organizations completed information in this section.
Almost all of the organizations with less than 50 employees did not complete this question.

**TABLE 6.5 PERCENTAGE OF ORGANIZATIONS INDICATING BIODATA WHICH
PREDICTS ACROSS RACES**

BIODATA	B	W	Mixed	All	Total
Schooling level	4,8	16,7	28,6	50,0	42
School marks	0,0	27,3	24,2	48,5	33
School subjects	0,0	25,0	4,2	70,8	24
Type of schooling (academic/technical)	7,7	7,7	23,1	61,5	13
Post-school qualifications	3,6	21,4	3,6	71,4	28
Employment history	3,9	13,7	29,4	52,9	51
Hobbies/interests	0,0	24,3	29,7	45,9	37
Health history	0,0	21,1	21,1	57,9	19
Age	0,0	27,3	27,3	45,5	22
Abilities/aptitude	0,0	0,0	57,1	42,9	7
Interest in job/company	0,0	14,3	0,0	85,7	7
Area of residence	0,0	0,0	25,0	75,0	4
Home/family background	11,1	22,2	33,3	33,3	9

KEY B: percentage of organizations reporting prediction for blacks only

W: percentage predicting for whites only

Mixed: percentage predicting for more than one race group, but not all groups

All: percentage predicting for all race groups

Note. No organization reported biodata predicting for coloureds or Asians only.

Of the respondents who provided biographical variables predicting according to race, most indicated biodata did not predict for one race group only as can be seen from the higher percentages in the 'mixed' and 'all' columns in Table 6.5. Area of residence and abilities/aptitudes are considered by all these respondents to be predictive for more than one race group. Of the mentioned biographical variables, home/family background is felt to predict least well across race groups. No biographical information was listed which organizations felt predicted particularly well for one race group and not another.

When interpreting Tables 6.4 and 6.5 it should however be borne in mind that this data reflects the responses of 127 organizations. As 426 companies reported using application forms in apprentice selection, the information in these tables thus represents the responses of few of the respondents who require applicants to complete application forms. It therefore appears that many organizations may be unaware of the effectiveness of biographical information obtained from their application forms in predicting success as an apprentice.

6.3 INTERVIEWS

Respondents indicated an interview is the method most likely to be included in a programme for selecting apprentices. Almost all respondents reported interviewing an apprentice applicant (98%). Employers invariably wish to meet a prospective employee in a face-to-face situation before making a final appointment. Unlike most of the other selection methods mentioned in Table 6.1, a high percentage of organizations of all sizes reported interviewing applicants. For many smaller organizations, an interview is the only selection method employed.

Of the 628 organizations using interviews to select apprentices, 241 (38,4%) reported using panel interviews. There was a tendency for a greater percentage of the larger organizations to report using panel interviews. Amongst respondents indicating they interview potential apprentices, 5,5% of organizations with less than 10 employees, and 22,0% of organizations with between 10 and 50 employees reported using panel interviews. In contrast, 71,2% of organizations with a staff greater than 1000 reported using this type of interview. Five companies indicated they conduct one-to-one and panel interviews with applicants.

The majority of companies (73,9%) conducting panel interviews rely on two to three interviewers. Amongst the organizations interviewing on a one-to-one basis, predominantly smaller organizations, 68,3% utilize only one interviewer; 31,7% require that an applicant be interviewed on a one-to-one basis by more than one interviewer.

In Table 6.6 the categories of staff conducting interviews on a panel and one-to-one basis are depicted.

TABLE 6.6 CATEGORIES OF STAFF CONDUCTING INTERVIEWS ON A PANEL OR ONE-TO-ONE BASIS

STAFF CATEGORY	PANEL	ONE-TO-ONE
	N	N
Senior management	52	164
Management involved directly with trades	105	132
Personnel managers	39	29
Personnel-related staff (not managers)	86	36
Training managers	39	15
Training related-staff (not managers)	84	28
Foreman (apprentice)	74	40
Apprentice supervisor	36	14
Engineer/technician	64	14
Artisan/qualified apprentice	16	9
Trade union representative	6	0
Other	8	1

Staff most frequently appearing as panel interviewers are managers directly concerned with the trade in question, personnel staff, training staff, as well as the foremen concerned with apprentices. In organizations conducting one-to-one interviews, staff at the senior management level (directors, general managers, owners) are the usual interviewers. The second most frequently mentioned category is that of managers directly concerned with the trade in question. Amongst respondents using interviews to select apprentices, 20,5% indicated they have a particular set of questions they ask applicants.

6.4 PSYCHOMETRIC TESTS

As shown in Table 6.1, 383 organizations indicated they make use of psychometric test results when selecting apprentices. An additional nine companies reported using them sometimes (e.g. when they are unsure about an applicant's ability to succeed), and five said they had used them in the past, but no longer use them.

Organizations were asked whether psychometric testing of apprentices is conducted within their companies, or if they make use of external services. Of the organizations indicating they test applicants all or some of the time, most make use of the services of external organizations only (61,3%). A further 8,5% reported using external services as well as sometimes conducting testing within their own organizations. Just under a third of the sample (30,3%) said all testing is conducted within the company. The majority of smaller

companies rely on the testing facilities of external organizations. The larger the organization, the more likely testing is to be conducted within the company.

In the building, motor, hairdressing and printing industries, and government institutions, a high percentage of testing is conducted by external agencies. Within the hairdressing industry 100% of testing performed is conducted externally. The only respondent from the furniture industry indicated that all psychometric testing is conducted externally. Organizations in the mining, electricity supply, and sugar industries do most of their testing of apprentices within their own organizations.

In Table 6.7 the external organizations performing psychometric testing for respondents is listed.

TABLE 6.7 NUMBER OF RESPONDENTS MAKING USE OF EXTERNAL ORGANIZATIONS FOR PSYCHOMETRIC TESTING

EXTERNAL ORGANIZATIONS	N	% of 271
Department of Manpower	216	79,7
Industry centres	31	11,4
HSRC/NIPR	7	2,6
Department of Manpower & other centres	6	2,2
Private psychologist	6	2,2
Other	5	1,8
	271	

Most of the testing conducted by external organizations is performed by the Department of Manpower (79,7% reported relying on the Department of Manpower only). This is followed by industry centres (e.g. BIFSA, SEIFSA) (11,4%). Several organizations have applicants tested by NIPR/HSRC or a psychologist in private practice.

Organizations conducting testing within their own company were asked to name the tests they used. Their responses are summarized in Table 6.8.

The most frequently mentioned psychometric tests used to select apprentices are the Mechanical Comprehension test (45,7%), Blox (35,7%), the Mental Alertness (20,9%), and Intermediate Battery (20,2%) (which includes the Mental Alertness test). It can be seen from Table 6.9 that most organizations indicated they use the same tests for selecting applicants from all race groups. Exceptions are the SORT (Structured Objective Rorschach Test), TAT-2, and 16PF, all of which are non-cognitive C-level instruments.

TABLE 6.8 LIST OF TESTS USED BY ORGANIZATIONS TESTING APPRENTICES
IN-COMPANY

TEST NAME	N	% of 129
Mechanical Comprehension	59	45,7
Blox	46	35,7
Mental Alertness	27	20,9
Intermediate Battery	26	20,2
FCT (Figure Classification Test)	20	15,5
Otis (Iscor)	19	14,7
Senior Aptitude Tests	16	12,4
Normal Battery	13	10,1
TRAT (Trade Aptitude Test Battery)	10	7,8
16PF	10	7,8
Technical Reading Comprehension	8	6,2
Arithmetic Test	8	6,2
SORT (Structured Objective Rorschach Test)	8	6,2
TAT-Z	5	3,9
Pattern Relations Test	4	3,1
Technical & Scientific Information	4	3,1
Other	63	48,8

Note. Information on the names of tests used was provided by 129 organizations.

The Intermediate Battery includes the Mental Alertness test.

Although most organizations use the same tests for applicants of all races, some organizations differ in their administration and scoring of tests for different races. In Table 6.10 information is presented on norms, cut-offs and time limits.

Most organizations appear to use the same time limits for applicants of different races. Two percent of respondents indicated using different time limits for different races. Fewer organizations use the same cut-offs: 15,5% of respondents indicated using different cut-offs for different races. About a third of test administrators reported using different norms for the different race groups.

TABLE 6.9 NUMBER OF ORGANIZATIONS USING DIFFERENT PSYCHOMETRIC TESTS FOR SELECTING ACROSS RACE GROUPS

TEST NAME	B	W	Mixed	All
Mechanical Comprehension	0	5	18	33
Blox	0	3	9	30
Mental Alertness	0	2	6	16
Intermediate Battery	0	2	9	12
FCT	0	0	3	15
Otis (Iscor)	0	0	7	12
Senior Aptitude Tests	0	3	7	4
Normal Battery	1	0	3	7
TRAT	3	1	3	3
16PF	0	6	0	4
Technical Reading Comprehension	0	1	1	6
Arithmetic Test	0	0	3	5
SORT	0	4	2	1
TAT-Z	2	0	0	2
Pattern Relations Test	0	0	1	2
Technical & Scientific Information	0	1	0	3

KEY B: used for blacks only

W: used for whites only

Mixed: used for more than one race group, but not all groups

All: used for all race groups

Note. No organization reported using tests for coloureds and Asians only.

TABLE 6.10 NUMBER OF ORGANIZATIONS REPORTING USING THE SAME TIME LIMITS, CUT-OFFS AND NORMS FOR DIFFERENT RACES

TEST NAME	SAME TIME LIMITS		SAME CUT-OFFS		SAME NORMS	
	Y	N	Y	N	Y	N
Mechanical Comprehension	52	2	45	9	34	19
Blox	43	0	37	6	25	17
Mental Alertness	23	1	20	4	12	11
Intermediate Battery	23	0	22	1	20	3
FCT	20	0	16	4	8	12
Otis (Iscor)	19	0	16	3	19	0
Senior Aptitude Tests	9	1	9	1	9	1
Normal Battery	13	0	10	3	6	7
TRAT	7	1	7	1	7	1
16PF	4	0	4	0	4	2
Technical Reading Comprehension	7	0	6	1	4	3
Arithmetic Test	8	0	7	1	5	3
SORT	4	0	4	0	3	1
TAT-Z	1	0	1	1	2	1
Pattern Relations Test	3	0	1	2	1	2
Technical & Scientific Information	3	0	2	1	2	1

KEY Y: Yes N: No

When correctly used, psychometric tests are administered by a person specifically trained in this function. Amongst the 151 organizations testing in-company, 68,9% indicated they employ an individual specifically trained to administer psychometric tests. Thus some organizations use untrained staff to test apprentices, a finding that also emerged in the HSRC/NTB (1985) study. Of the 151 companies testing within their own organizations, 105 said they examine the validity of their testing by comparing test scores and training/job success.

Amongst organizations using company facilities to test apprentice applicants, 53,6% indicated that tests are very useful. Only one organization reported that tests are not useful. Of all organizations who have applicants tested (this includes those companies relying on external services, as well as companies performing their own testing), 45,7% feel psychometric tests are a very useful aid in apprentice selection, 50,0% consider them to be useful, and 4,3% feel they are not useful. This result is not surprising: organizations testing applicants will continue to test only if this selection method appears to be useful. Thirteen organizations said they had developed their own in-house psychometric tests for selecting apprentices.

One hundred-and-two organizations said they had a documented testing policy, and 13 reported that they had made recent changes to their policy. Eight of these organizations had updated their test battery, made adjustments to the tests they used, or updated norms. Five respondents indicated they had only recently introduced testing, and that their test batteries and testing procedures are still being finalized. Four of these organizations are testing internally, and one reported using the Department of Manpower.

In summary, psychometric tests are rated as the third most commonly used selection method (interviews and application forms being the most popular methods). Approximately a third of organizations using psychometric tests for apprentice selection conduct the testing within their own companies. Internal testing is more frequently performed by larger organizations, as well as by organizations in the mining, electricity supply and sugar industries. Most of the organizations making use of external facilities for testing rely on the Department of Manpower.

The tests most commonly used by organizations doing in-company testing are: the Mechanical Comprehension, Blox, and Mental Alertness. With the exception of personality tests, which appear to be infrequently used, most organizations use the same tests for selecting from different race groups. Not all organizations use the same norms when selecting from different races. A few respondents indicated that they use different cut-offs for different race groups, and an even smaller number indicated that they set different time limits for applicants of different races. About two-thirds of organizations conducting in-company testing indicated they examine the validity of their

testing. Finally, 68,9% of respondents conducting in-company psychometric testing said their company employs an individual specifically trained to administer psychometric tests.

6.5 PSYCHOMOTOR TESTS

Psychomotor tests measure motor skills such as coordination and dexterity. Tables 6.1, 6.2, and 6.3 list information on the usage of psychomotor tests.

Twenty-eight organizations responded that they use psychomotor tests. These tended to be the larger organizations. Tests used are mainly handskills, eye-hand coordination, and two-hand coordination tests. To a lesser extent hand-foot coordination and reaction time tests are used. From the respondents' comments, it appears that most organizations making use of psychomotor tests develop their own tests.

The TRAT (Trade Aptitude Test Battery) and Department of Manpower battery used for testing apprentices each contain a pencil and paper coordination test. These are not classified as psychomotor tests in this report.

Overall, few companies tend to make use of psychomotor tests when selecting apprentices. The reason for this is probably that few companies have access to psychomotor tests, or the means to develop their own.

6.6 WORK SAMPLE TESTS

Most organizations requiring prospective apprentices to undergo work sample/trainability testing have applicants perform a task very similar to one they would have to perform on the job. From Tables 6.1, 6.2, and 6.3 we can see that 92 organizations reported using work sample/trainability tests. Many of the organizations using work sample tests have less than 10 employees. A high percentage of respondents from the sugar industry indicated using work sample/trainability tests.

Just over a third of respondents using work sample tests for selecting apprentices gave a one-line description of the sort of task the test entails. Applicants typically have to construct, assemble, or strip equipment using tools of the trade.

Although more apprentice employers indicate using work sample tests than psychomotor tests, the number of organizations using work sample tests for selecting prospective apprentices is still fairly small, and far fewer than the number making use of psychometric testing facilities.

7. SELECTION PROCEDURES WITH SPECIFIC EMPHASIS ON POLICIES RELATING TO RACE AND SEX

In this chapter the employment and selection policies of respondents towards the appointment of apprentices of different races and each sex is examined. Firstly we will look at policies relating to the appointment of female apprentices. The second part will focus on policies concerning the acceptance of different races for apprenticeship.

7.1 SELECTION OF FEMALES

Traditionally, most women apprentices have been indentured in the hairdressing industry. In Table 7.1 it can be seen that very little has changed in this regard. In this table the number of female and total number of apprentices in the different industries is illustrated. Most female apprentices (74,1% of the total number of females in the sample) are employed in the hairdressing industry. Second to the hairdressing industry in terms of number and proportion of female apprentices is the printing industry. The respondents from the printing industry reported that 8,1% of their apprentices are female, 95,6% of apprentices in the hairdressing industry are female.

TABLE 7.1 NUMBER OF FEMALE APPRENTICES IN THE DIFFERENT INDUSTRIES

INDUSTRY	N	Total		%
		Females	Apprentices	
Aerospace	2	760	0,3	
Building	1	422	0,2	
Elect. supply	4	869	0,5	
Electrotechnic	0	66	0,0	
Furniture	0	.	.	
Govt. institutions	3	162	1,9	
Hairdressing	172	180	95,6	
Local authorities	0	552	0,0	
Metal	0	2362	0,0	
Mining:coal	0	755	0,0	
Mining:other	0	2672	0,0	
Motor	11	750	1,5	
Printing	33	408	8,1	
Sugar	0	152	0,0	
Transport	0	2919	0,0	
Tyre & rubber	0	42	0,0	
Other	6	1204	0,5	

Note: Totals are taken from Table 3.3.

$\% = N/TOTAL \times 100$

The respondent companies from the local authorities, electrotechnic, furniture, metal, mining, sugar, transport, and tyre and rubber industries reported they employ no female apprentices. However three companies in the metal industry failed to indicate if they had any female apprentices in their employ. The percentage of organizations in various industries with at least one female apprentice is as follows: 93,9% in the hairdressing industry; 36,6% in the printing industry; 27,3% of government institutions; 20% in the aerospace industry; 5,3% in the electricity supply industry; 2,6% in the motor industry; 2,2% in the building industry; and 6,2% in the "other" category.

What then is the attitude of employers to the appointment of women apprentices? Only 30 respondents mentioned they had specific policies concerning apprenticeship for women.

Eight of these organizations indicated that they did not discriminate between sexes in selection. They said they apply the same rules and procedures to males and females. Two of the 30 said they had received no applications from females, but they would definitely be considered should they apply. One organization specifically mentioned it was management's aim to train a target number of females the following year. Thus 11 of the 30 organizations appeared in favour of offering apprenticeships to men and women.

Seventeen organizations said they would employ only males or only females. Three hairdressing companies said they would not employ male apprentices. Fourteen of the 30 organizations said they would not consider appointing female apprentices. Reasons for this included: females not suited to the trade; separate changeroom and toilet facilities needed; females not willing to work on standby or overtime; and females not allowed to work underground (mine regulations).

In general respondents indicated very little interest in encouraging the appointment of female apprentices. Of all the 644 respondents, 82,9% employ no female apprentices. Only 30 organizations indicated they have any specific employment policy affecting female applicants. Just under half of the respondents who said that their organization has a specific policy towards selecting women apprentices (14 out of 30) mentioned they prefer to follow a "males only" policy. It is also possible that women themselves may not show much interest in an apprenticeship in the traditional "male-oriented" trades.

7.2 SELECTION OF DIFFERENT RACES

Of the 644 organizations responding to the survey, 105 (16,3%) reported that they have a special policy with respect to the selection and employment of apprentices of different races. Specific policies were mentioned by 88 of these. These are detailed in Table 7.2.

A few companies endorse policies opposing the employment of apprentices of all races. The majority of respondents stating specific policies are in favour of employing apprentices from all race groups.

TABLE 7.2 NUMBER OF ORGANIZATIONS USING DIFFERENT EMPLOYMENT POLICIES

EMPLOYMENT POLICY	N	% of 88
Ratios	21	23,9
Quotas	14	15,9
Ratios & quotas	4	4,5
Select on merit irrespective of race	30	34,1
Try to maintain a balance	7	8,0
Only employ whites	7	8,0
No local technical colleges for non-whites *	2	2,3
Std 10 entry for blacks, 8 for whites	1	1,1
Guided by Sullivan code	1	1,1
Black advancement programme	1	1,1
	88	

* Organizations indicated that this affected their employment policy

Of the 88 organizations mentioning specific selection policies, 34,1% said they select on merit, with members of all races having the same chance. Ratios are used by 23,9% of the 88 organizations. These are the two policies endorsed by the largest number of respondents.

Those organizations replying that they try to maintain a balance indicated that they do not have definite quotas or ratios, but try not to let one group be selected out of proportion to another.

Large organizations, as well as organizations in the mining and sugar industries, endorse employment policies favouring the appointment of apprentices of all races to a greater extent than other organizations. It should be noted, however, that organizations reporting having specific policies endorsing the appointment of non-white apprentices do not always have the highest proportions of Asian, black and coloured apprentices in their workforces. In this survey few companies in the building industry indicated policies favouring the appointment of Asian, black and coloured apprentices, yet companies within this industry employ many apprentices of all races. From Table 3.3 in chapter 3, it can be seen that 37,2% of all apprentices employed by respondent organizations in the building industry are white. In contrast organizations in the coal mining industry reported that 88,2% of their apprentices are white, and companies in the mining (non-coal) industry reported 87,7% of their apprentice workforce as white. Yet the mining industry has one of the highest incidences of policies favouring the appointment of apprentices of all races.

Hence organizations having definite and documented employment policies favouring apprenticeship for all races do not necessarily have greater proportions of blacks, coloureds, and Asians in their employ. This does not mean that organizations professing to follow such employment principles do not adhere to them. The prospective applicant pool, their achievements, experience and schooling, as well as trade technological sophistication, may play a role as to how policies affect the ultimate racial composition of the apprentice/artisan workforce.

Table 7.3 shows how some specific employment policies relate to the racial composition of apprentices in respondent organizations. In this table employment policies are divided into four categories:

1. Ratios
2. Quotas
3. Policies favouring apprenticeships for all races (excluding 1 & 2)
4. Policies not favouring apprenticeships for all races, or no specific policy.

The percentages in Table 7.3 illustrate that of the policies investigated, the setting of ratios is the one most likely to result in a more representative proportion of apprentices from the various race groups. Particularly noticeable is that organizations indicating they use ratios or quotas employ a much higher percentage of black apprentices than those using policies 3 and 4. Another finding apparent from this table is that companies indicating policies (other than ratios or quotas) in favour of employing apprentices of all races are no more successful in achieving a more even representation among groups than those who claim to have no specific policies in this regard or policies rejecting the appointment of apprentices of all races.

TABLE 7.3 PERCENTAGE OF APPRENTICES IN THE VARIOUS RACE GROUPS EMPLOYED ACCORDING TO DIFFERENT EMPLOYMENT POLICIES

EMPLOYMENT POLICY	PERCENTAGE OF APPRENTICES				Total
	A	B	C	W	
Ratios	2,6	14,7	6,8	76,6	843
Quotas	2,4	11,4	3,2	83,1	1853
Favouring all races	1,1	5,9	5,6	87,4	2179
None/not all races	3,5	5,9	6,2	84,3	8677

KEY A: Asians
 B: blacks
 C: coloureds
 W: whites

Note. For each selection policy percentages are calculated from the total on the right of the table.

In Tables 7.4 - 7.7, the racial composition of the apprentice workforce of the respondent organizations is related to size of organization, industry, and recruitment and selection methods utilized when selecting an apprentice. Four mutually exclusive groupings of organizations are delineated:

1. Organizations with white apprentices only.
2. Organizations with the number of white apprentices greater than the combined total of Asian, black and coloured apprentices.
3. Organizations with the combined number of Asian, black and coloured apprentices greater than or equal to the number of white apprentices.
4. Organizations employing Asian, black, and/or coloured apprentices only.

Of the 617 respondents who indicated the number of apprentices they have in their employ, 51,5% fall in category 1, 22,5% in category 2, 17,3% in category 3, and 8,6% in category 4.

In Tables 7.4 - 7.7 the following abbreviations are used:

- W 0 - white apprentices only
W>A,B,C - number of white apprentices exceeds the combined totals for Asian, black, and coloured apprentices
A,B,C>= W - combined total of Asian, black, and coloured apprentices greater than or equal to number of white apprentices.
A,B,C 0 - Asian, black and/or coloured apprentices only

In Table 7.4 the relationship between size of organization and the racial composition of the total number of apprentices in organizations is depicted. The relationship between industry, recruitment methods and selection methods, and the racial composition of the respondents' apprentice workforce is detailed in Tables 7.5, 7.6, and 7.7 respectively.

TABLE 7.4 RACIAL COMPOSITION OF APPRENTICE WORKFORCE ACCORDING TO SIZE OF ORGANIZATION

APPRENTICE GROUPINGS	NUMBER OF EMPLOYEES				
	Under 10	10-50	50-200	200-1000	1000+
W 0	88,2	71,6	51,6	25,0	33,9
W > A,B,C	0,0	10,7	19,7	31,8	45,0
A,B,C >= W	4,4	7,1	18,9	35,1	15,6
A,B,C 0	7,4	10,7	9,8	8,1	5,2
Total N responding in size category	68	169	122	148	109

Note. Values in the table represent the percentage of organizations of that size whose apprentice workforce falls in that particular grouping.

The survey data reveals no definite trend towards an increase or decrease in percentage of apprentices who are white as size of organization increases or decreases. However, many of the very small organizations (those with less than 10 employees) employ white apprentices only (88,2%). Industries employing a greater proportion of white apprentices (as opposed to other races) include government institutions, the electricity supply industry, the electrotechnic industry and the hairdressing industry (Table 7.5). The building, metal, printing, and particularly sugar industries employ to a greater extent apprentices from all race groups.

TABLE 7.5 RACIAL COMPOSITION OF APPRENTICE WORKFORCE ACCORDING TO INDUSTRY

INDUSTRY	APPRENTICE GROUPINGS				Total N in industry
	W O	W>A,B,C	A,B,C>= W	A,B,C O	
Aerospace	60,0	40,0	0,0	0,0	5
Building	24,4	17,8	24,4	33,3	45
Elect. supply	73,7	26,3	0,0	0,0	19
Electrotechnic	72,7	18,2	0,0	9,1	11
Furniture	.	.	.	.	1
Govt. institutions	83,3	0,0	16,7	0,0	12
Hairdressing	81,5	4,6	9,2	4,6	65
Local authorities	69,6	26,1	4,3	0,0	23
Metal	37,8	31,1	24,4	6,7	135
Mining:coal	0,0	80,0	20,0	0,0	5
Mining:other	22,6	61,3	9,7	6,5	31
Motor	68,4	13,5	7,7	10,3	155
Printing	32,5	37,5	22,5	7,5	40
Sugar	16,7	0,0	66,7	16,7	6
Transport	40,0	40,0	20,0	0,0	10
Tyre & rubber	25,0	25,0	50,0	0,0	4
Other	41,8	21,5	30,4	6,3	79

Note. Figures in the table represent the percentage of organizations in that industry whose apprentice workforce falls in that particular grouping.

The relation between recruitment strategies and the percentage of apprentices of different races in organizations is shown in Table 7.6. From the percentages in this table, it can be seen that the recruitment method most associated with greater numbers of non-white apprentices in organizations is selection/promotion from within the company. Amongst companies with 50% or more of their apprentices Asian, black and/or coloured, 32,9% (17,8% + 15,1%) reported that they select from within the company. In contrast, 11,7% (2,3% + 9,4%) of

organizations whose apprentice workforce is more than 50% white report using this method. Visiting trade schools and technical colleges is also found to be associated with higher employment of Asian, black, and coloured apprentices.

TABLE 7.6 RELATION OF RECRUITMENT STRATEGIES TO RACIAL COMPOSITION OF APPRENTICE WORKFORCE

RECRUITMENT STRATEGIES	APPRENTICE GROUPINGS			
	W O	W>A,B,C	A,B,C>= W	A,B,C O
Ads in opportunities	4,2	8,7	5,6	5,7
Ads in daily newspapers	24,6	43,5	42,1	13,2
Ads in magazines	2,6	9,4	2,8	1,9
Ads in weekly newspapers	14,2	23,9	15,9	5,7
Visit schools	7,1	18,8	15,0	7,5
Distribute brochures schools	3,9	13,8	9,3	5,7
Pupil visit organization	5,8	18,8	7,5	5,7
Unsolicited applications	44,3	44,2	29,9	30,2
Word of mouth	48,9	45,7	45,8	50,9
Use employment agency	3,6	3,6	0,9	1,9
Selected from within	2,3	9,4	17,8	15,1
Referrals from Manpower	5,8	3,6	5,6	0,0
Visit trade schools	3,6	3,6	9,3	7,5
Referrals from industry	6,1	5,8	9,3	3,8
Total N	309	138	107	53
responding to question				

KEY Ads in opportunities:	Advertisements in "Opportunities for School Leavers"
Ads in daily newspapers:	Advertisements in daily newspapers
Ads in magazines:	Advertisements in magazines
Ads in weekly newspapers:	Advertisements in weekly newspapers
Distribute brochures schools:	Distribute brochures to schools
Pupil visit organization:	Encourage pupils to visit organization
Selected from within:	Selected from within company
Referrals from Manpower:	Referrals from the Dept. of Manpower
Visit trade schools:	Visit trade schools and technical colleges
Referrals from industry	Referrals from industry board

Note. Figures in the table indicate the percentage of organizations falling in that particular apprentice grouping, using that particular recruitment method.

Advertisements in weekly newspapers, advertisements in magazines, and unsolicited applications are among the more commonly used recruitment methods to be used by organizations employing mainly white apprentices.

It should not be concluded from this data that certain recruitment methods are definitely likely to increase the number of Asian, black and coloured apprentices within organizations. Strictly controlled studies would have to be carried out to investigate this issue. The table merely provides the reader with an idea of how recruitment methods, as used by the responding organizations, relate to the number of apprentices of different races within organizations.

From Table 7.7 it is apparent that the selection method most highly related to greater numbers of Asian, black and coloured apprentices in an organization is work sample testing. Of the organizations with half or more than half of their apprentice workforce comprising Asians, blacks, and/or coloureds, 44,4% (25,2% + 19,2%) indicated they use work sample tests in their selection procedure. Amongst the organizations with a majority of white apprentices, 22,4% (12,3% + 10,1%) use work sample tests. Comparing percentages in Table 7.7 between groups with predominantly white versus predominantly non-white apprentices, it can be seen that no other selection method mentioned is related more strongly to organizations with mainly white or mainly non-white apprentices. Once again however, it should be noted that this in no way implies that certain selection procedures will definitely alter the composition of one's apprentice workforce. It simply means that a greater percentage of respondents with mostly non-white apprentices than respondents with mostly white apprentices use work sample tests as part of their selection procedure.

TABLE 7.7
RELATION OF SELECTION METHODS TO RACIAL COMPOSITION
OF THE APPRENTICE WORKFORCE

SELECTION METHODS	APPRENTICE GROUPINGS			
	W O	W>A,B,C	A,B,C>= W	A,B,C O
Application forms	55,4	85,6	83,2	50,0
Interviews	97,5	99,3	98,1	98,1
Psychometric tests	50,0	77,0	72,0	57,7
Psychomotor tests	2,8	6,5	8,4	1,9
Work sample tests	12,3	10,1	25,2	19,2
Medical examination	31,0	59,7	53,3	25,0
Trial period	7,0	7,9	3,7	9,6
Total N responding to question	316	139	107	52

Note. Values in the table represent the percentage of the total N for each apprentice grouping who indicated they used that particular selection method.

In summary, several organizations appear to favour employing apprentices of all races, and 12,1% of all respondents mentioned specific policies designed to achieve this. The larger organizations, and organizations in the sugar and mining industries are strongly represented in this 12,1%. The analyses reveal that organizations who set ratios or quotas employ more black apprentices than organizations who do not set such targets.

Size of organization does not strongly relate to the number of apprentices of different races indentured, although the smaller organizations are more likely to employ only whites. Organizations in the sugar industry and in the building industry are most likely to have apprentices from the non-white categories. One factor which appears to influence the number of apprentices of different races in the various industries is technology: few of the more technologically advanced industries employ many non-white apprentices. Promotion from within the company and work sample testing are found to be used more frequently by organizations employing a higher percentage of black, coloured and Asian as compared to white apprentices.

8. SOME SPECIFIC ISSUES RELATING TO APPRENTICE SELECTION

Respondents were invited to comment on any issues or problems affecting apprentice selection, as well as suggest areas they felt required further investigation. Respondents' opinions on the effect of the recession and technological developments were also solicited. The first section of this chapter will focus specifically on the influence of recent technological developments; the second section will highlight the effects of the recession; and the third section will briefly mention some other general concerns of apprentice employers.

8.1 TECHNOLOGICAL DEVELOPMENTS

The effects of technological advancement have been mentioned in previous chapters. In the chapter on recruitment (chapter 4), it was mentioned that 112 respondents (17,4% of the sample) responded positively to the question: "Has technological advancement affected apprentice recruitment?" In chapter four it was noted that many of these 112 respondents represent large organizations, local authorities, and the electricity supply, coal mining, transport and electrotechnic industries. Of the respondents replying that technology has affected apprentice recruitment, 74,3% replied that rising job demands have resulted in the raising of minimum levels of schooling and the imposition of stricter selection procedures.

This finding is borne out in the chapter on admission requirements (chapter 5). In this chapter it was noted that 174 organizations (27,0% of the total sample) responded that technological advances alone, or in conjunction with some other factor, have resulted in acceptable minimum schooling levels being raised. Technology is not the only reason proposed for organizations having raised minimum schooling entry levels, but it is the most frequently mentioned reason. Thirty-nine respondents indicated an alternative reason. Industries with the largest percentage of respondents indicating that technological advances have resulted in higher acceptable minimum schooling levels include the transport, coal mining and electrotechnic industries. Fifty percent of all companies in the transport industry, 40% of all companies in the coal mining industry, and 36,4% of all companies in the electrotechnic industry mentioned they have raised schooling levels in response to increasing technological developments. Organizations with less than 10 employees are not strongly represented in this group.

In a question specifically designed to gauge the effect of technological advancement, 153 respondents (23,8%) reported that in the last two years there have been major technological changes which have impacted upon apprentice training. Larger organizations, as well as organizations in the mining (coal and other), printing,

transport, motor, electrotechnic industries, and local authorities feature prominently among these 153 respondents. More than 25% of organizations in these industries said technology has impacted upon apprentice training. Industries with less than 20% of respondents replying training has been affected are the building, hairdressing, sugar, tyre and rubber industries, and government institutions. Amongst companies with more than 1000 employees, 30,6% responded positively to the question on the effect of technological advances on apprentice training; 15,9% of companies with less than 50 employees responded positively.

The trade categories where most technological change seems to have occurred are radio/radar/communications, electronics, diesinking/pressing/engraving, and instrument mechanics. On the other hand little change seems to have occurred in painting/ spraypainting. Tradesmen most commonly affected by technological developments are: electricians; auto-electricians; electronicians; instrument mechanics; refrigeration mechanics; motor mechanics; diesel mechanics; photolithographers; lithographers; compositers; engravers; and typesetters. Also mentioned, but much less frequently are: toolmakers; tool, jig & diemakers; fitters; turners; fitters & turners; hairdressers; sheetmetalworkers; boilermakers; welders; machine-minders; plumbers; millwright workers; platers; and automotive machinists.

These lists illustrate that a great number of trades have been affected to varying degrees by technological advances. Such a trend seems likely to continue.

Respondents discussed a number of consequences of technological developments. Many organizations indicated that more training is required. Some organizations have developed additional courses; in others apprentices are sent on various courses to update and supplement their training and knowledge. It was also stated by some organizations that the training supplied by training institutions is inadequate for current levels of trade sophistication. Another important aspect mentioned by employers is that the training methods used within organizations need to remain up to date. Several felt that too few training staff have adequate qualifications and that trainers need to go on courses to remain up to date. Some organizations said that much training equipment needs updating.

As has been highlighted throughout this report, another major feature of technological advancement has been the tendency of several organizations to implement stricter selection procedures, and often to raise the minimum acceptable school standard required for admission into an apprenticeship.

Technological developments, together with the possibility of stricter selection criteria may result in recruitment problems. Organizations requiring applicants with higher levels of schooling than they required in the past (e.g., Std 10 with mathematics and science) may have to alter traditional approaches to apprentice recruitment to attract suitable applicants. Some may already have done so.

One hundred and twelve respondents reported technological advances have affected recruitment. The researcher decided to examine the recruitment strategies adopted by these 112 respondents. In Table 8.1 a comparison between the percentage of organizations claiming that recruitment has been affected by technological advances, and the sample as a whole, across recruitment strategies utilized, is depicted.

TABLE 8.1 COMPARISON BETWEEN RECRUITMENT STRATEGIES USED BY ALL RESPONDENTS AND RESPONDENTS INDICATING RECRUITMENT AFFECTED BY TECHNOLOGICAL ADVANCEMENT

RECRUITMENT STRATEGY	% of 112	% total
Advertisements in "Opportunities for School Leavers"	8,9	5,8
Advertisements in daily newspapers	41,2	31,3
Advertisements in magazines	8,9	4,4
Advertisements in weekly newspapers	17,0	15,6
Visit schools	17,0	11,4
Distribute brochures to schools	11,6	7,0
Encourage pupils to visit the organization	13,4	8,8
Unsolicited applications	44,6	40,4
Word of mouth	53,6	47,2
Use employment agency	3,6	3,0
Selected from within company	8,9	7,6
Referrals from the Department of Manpower	5,4	4,6
Visit trade schools and technical colleges	4,5	4,7
Referrals from industry board	8,0	6,5

Note: Figures in the column '% of 112' represent the percentage of respondents reporting recruitment is affected by technology who use that particular strategy.

Figures in the column '% total' indicate the percentage of the total sample who reported using that recruitment strategy. (See Table 4.1.)

Recruitment strategies utilized particularly by the group experiencing the effects of technological advancement include advertising in "Opportunities for School Leavers", advertising in magazines, visiting schools, distributing brochures to schools, and encouraging pupils to visit the organization.

Thus there appears to be a concerted effort among respondents indicating that technological advancement is affecting apprentice recruitment to attract the attention of suitable school pupils. These organizations also use a greater number of recruitment procedures. For the sample as a whole, 47,6% make use of only one recruitment strategy, while 25,3% use three or more methods. Amongst the group experiencing the effects of technological developments, 27,7% rely on only one method, while 41,1% use three or more methods.

This survey, and this chapter in particular, highlight the effect of technological developments on apprentice training. Technological developments seem certain to increase in the future. As technological developments continue, selection procedures will have to be altered to take account of the changes occurring in the workplace. Certain employers of apprentices are already experiencing problems with recruitment. It may be necessary for organizations to alter recruitment strategies to attract the required calibre of person. Future artisans may also have to undergo additional, and possibly continuous training, to keep abreast of developments in the trades.

8.2 RECESSION

As can be ascertained from previous sections of this report, the recession affected apprentice selection procedures. Organizations were asked in an open-ended question whether the recession had affected apprentice selection procedures, and if so in what way procedures had altered. A total of 105 organizations (16,3% of the sample) cited the 1985-1987 recession as a factor.

Thirty-five organizations stated that the economic downturn had forced the organization to cut back on the number of apprentices indentured. A further 13 indicated no apprentice training had been conducted during this period. Also, 26 employers were now being swamped with applications, and 28 reported implementing stricter selection procedures and raising entry requirements.

Two organizations indicated they were giving precedence to white applicants, and a further two said a shortage of training personnel had forced them to cut back on their apprentice intake.

8.3 INDUSTRY PROBLEMS AND ISSUES REQUIRING FURTHER INVESTIGATION

Organizations were asked whether they had any industry specific problems relevant to apprentice selection, and also whether there were aspects of apprentice selection not covered by the questionnaire which they had identified as requiring investigation. In many cases the organizations' responses to the two questions overlapped; we will therefore combine their responses, where appropriate, in the following discussion. Ninety-nine organizations mentioned problems (15,4% of the total sample). Many different problems were mentioned. In this report we will only deal with those most frequently mentioned, as well as those most pertinent to the aims of this study.

Firstly, 20 companies indicated they are experiencing problems with the calibre of person applying for an apprenticeship. They indicated their applicants are unsuitable, have inappropriate school subjects, and insufficient schooling.

Another problem frequently mentioned, which could be related to the above one, concerns the status of an apprentice and artisan. It was felt by 11 employers that many young people prefer white collar sales and clerical jobs. Wages are low during apprenticeship, and many people prefer not to do dirty, heavy work. As can be seen in chapter 5, many organizations are insisting on a matric before indenturing an apprentice, but are finding that at that level, young people are not interested in an apprenticeship.

Five organizations felt that documentation is needed to familiarise the public with trades. They argued that young people applying for an apprenticeship are not well informed about careers or the trades, they have no idea what they are applying for, and often make the wrong choice. A respondent specifically mentioned that blacks are ill-informed about apprenticeship, and need more vocational guidance. Three organizations mentioned that the scarcity of local technical colleges for non-whites restricts their intake of black apprentices.

The need to evaluate the effectiveness of selection procedures was stressed by three organizations. This includes updating and developing new test batteries, as well as performing validity studies. The need for, and desirability of, "culture-fair" selection instruments was mentioned by three organizations. Eight employers also mentioned the need to assess personality, leadership ability, maturity and the responsibility of young trainees, as well as psychomotor and trainability skills.

9. SUMMARY AND CONCLUSION

In the first part of this chapter we will summarize the findings from chapters 3 through 7. In the second part we will present final conclusions.

9.1 SUMMARY

9.1.1 Description of the sample

The analyses in this report are based on the replies of the 644 respondent organizations. This section will briefly summarize the characteristics of these responding organizations. Chapter 3 contains the full details of these characteristics.

Just under one half of the organizations are located in the Transvaal. Slightly more than 46% of organizations indicated they fall within the motor or metal industries. Most industries have more respondents from the Transvaal than from another province. However, most sugar industry respondents are based in Natal, and most companies indicating they belong in the building, and tyre and rubber industries are situated in the Cape.

The majority of apprentices indentured by organizations are white (84,3% in the present sample). The racial distribution of apprentices appears to be related to the technological advancement of trades. A greater percentage of white apprentices are employed in the more technologically advanced trades.

Companies in the sugar and building industries have the most equitable distribution of apprentices among races. The province with the greatest number of non-white apprentices is Natal.

9.1.2 Recruitment

Chapter 4 deals in detail with the strategies which respondents reported making use of to recruit apprentices.

The most commonly used recruitment strategy is word of mouth, followed by unsolicited applications and advertisements in daily newspapers. Small organizations are more inclined to rely on word of mouth and unsolicited applications. Large organizations tend to make greater use of newspaper advertisements. Large organizations also appear to make use of a greater variety of methods than small organizations.

The most effective recruitment strategy is considered to be advertising in daily newspapers, with word of mouth a close second. Advertising in daily newspapers is considered most effective particularly by larger organizations, and word of mouth by the smaller organizations.

Despite an economic recession at the time the organizations completed the questionnaire, roughly 15% of respondents indicated they experience difficulty in recruiting apprentices. Problems mentioned include difficulty in finding applicants meeting the required minimum standards, applicants not keen to work in a "dirty" environment or perform "heavy" work, and a lack of knowledge about the existence of certain trades such as moulding, and rigging.

Just less than one fifth of respondents indicated that technological advancement has affected apprentice recruitment. The larger organizations are more likely to indicate that technological advancement has affected apprentice recruitment. The industries most commonly mentioning that technology has affected recruitment include the local authorities, electricity supply, coal mining, transport and electrotechnic industries. In this regard it should be noted that slightly more than 50% of all apprentices employed by local authorities who responded are apprentice electricians. The vast majority of respondents indicating that technology is affecting recruitment said that they are now seeking applicants with much higher levels of schooling.

9.1.3 Admission requirements

The admission requirements organizations indicated they take into account when considering indenturing an apprentice are discussed in chapter 5.

Minimum schooling level is the most frequently mentioned admission requirement considered, followed by age, psychometric test scores, and area of residence. Small organizations tend to rely on schooling level, age and area of residence as admission criteria. The larger organizations tend to rely more on minimum schooling level, psychometric test scores and age. As organizations increase in size, so psychometric test scores and medical examinations become more frequently used as admission criteria. Some organizations attach importance to the race and sex of a prospective apprentice.

Many organizations are now insisting on Std 10 for entry into certain trades, particularly in the electronics and instrumentation trades, and increasingly in the printing trades. This trend occurs across all race groups. With the exception of a few trade categories such as bricklaying/plastering/tiling, carpentry/woodwork, and painting/spraypainting, organizations prefer applicants to have at least Std 8. A few organizations set higher minimum schooling levels for non-whites, but most appear to accept the same minimum schooling level for all races. Most organizations indicated they require mathematics and science as school subjects for would-be apprentices. A few organizations insist on mathematics and science for non-white but not white applicants.

About a third (34,0%) of the sample indicated they have found it necessary to raise minimum acceptable schooling requirements in the last two years for entry into some or all of their trades. Those organizations who have raised minimum entry levels tend to be large

and belong in the electrotechnic, sugar, transport, metal, motor, printing, and coal mining industries. The primary reason for raising minimum schooling levels is increasing technological advancement.

9.1.4 Selection procedures

A variety of selection procedures used to select apprentices are discussed in chapter 6. Here we will highlight some of the main findings.

The three most frequently mentioned apprentice selection techniques are interviews, application forms and psychometric tests (in order of frequency of endorsement). Interviews are used by almost all organizations, irrespective of size and industry of major activity. Frequency of use of application forms increases with size of organization. The same is true of psychometric tests and medical examinations.

Biographical information from application forms which organizations feel is most predictive of training success, includes highest school standard passed, school marks, and school subjects. Job performance is felt to be best predicted by employment history and hobbies and interests. Most organizations believe that certain biographical information is predictive for all races.

Almost all respondents reported interviewing an apprentice applicant. Panel interviews are used by 38.4% of respondents. Large organizations are more likely to report relying on a panel interview. Panel interviewing is most frequently conducted by managers directly concerned with the trade in question, personnel and training staff (non-managerial), and foremen. One-to-one interviewers are typically senior managerial staff (directors, general managers, owners) and managers directly concerned with the trade. Approximately one fifth of respondents mentioned they have a particular set of questions they ask an apprentice applicant.

Of the organizations using psychometric testing for selecting apprentices, just under a third perform their own testing. The larger organizations, as well as organizations in the mining, electricity supply, and sugar industries, indicated that they do most of their psychometric testing themselves. Most of the respondents making use of external services for psychometric testing report using the Department of Manpower.

Tests which are most frequently used by companies doing their own in-house testing include the Mechanical Comprehension, Blox, Mental Alertness tests, and the Intermediate Battery. With the exception of personality tests, which few organizations indicated using, most respondents report using the same tests on all race groups. Almost all organizations report using the same time limits for all races. A few organizations use different cut-offs for selecting from different races. About two-thirds of organizations report using the same norms to select apprentices from different race groups. More indicate using different norms than different cut-offs or time limits.

Psychomotor tests are seldom used. Only 28 organizations reported including them in their selection procedure, and these were the larger organizations. Psychomotor tests appear to be developed in-house, and assess handskills, eye-hand and two-hand coordination primarily. Psychomotor testing may not be performed as frequently as companies require because of a shortage of standardized tests of this nature.

Work sample/trainability tests are used more frequently than psychomotor tests, although less frequently than psychometric tests. Work sample testing is most frequently performed in the sugar industry. Organizations in the sugar and hairdressing industries report using work sample tests more frequently than psychometric tests.

Work sample testing in the hairdressing industry appears to be fairly informally conducted. In the sugar industry, however, testing appears to be more rigorously conducted, with organizations sending prospective apprentices to the Industrial Training Centre of the South African Sugar Association for trainability testing.

9.1.5 Specific policies relating to the selection of apprentices of both sexes and all races

Findings on selection policies with respect to race and sex are dealt with in more detail in chapter 7. From the tables in chapter 7 it can be seen that females continue to be indentured primarily in the hairdressing industry. A traditionally "male-oriented" industry which recently seems more inclined to employ females is the printing industry. In general, though, most respondents show little interest in encouraging the appointment of female apprentices.

A little less than one seventh of respondents mentioned specific policies with regard to the employment of apprentices of all races. The policies most frequently mentioned are to "select on merit irrespective of the race of the applicant" and to set ratios. Larger organizations, as well as organizations in the mining and sugar industries are more likely to detail policies in favour of employing apprentices from all race groups. The data indicates that organizations who have set ratios and quotas employ a greater proportion of blacks in their apprentice workforce than organizations with other employment policies.

Many of the small organizations with less than 10 employees report indenturing white apprentices only. The sugar, building, printing and metal industries have the greatest number of non-white apprentices. The recruitment method which is most strongly associated with organizations employing a greater number of non-white apprentices is promotion from within the company. Work sample testing appears to be conducted more frequently within organizations employing mostly Asian, black, and coloured apprentices.

9.2 CONCLUSION

The aim of this research was to survey companies with regard to their apprentice selection methods; particular attention was paid to procedures used to select people of different race groups and both sexes.

The organizations whose responses formed the data for this report are of a variety of sizes, from different industries, and from different geographical areas. At the time that the survey was done, the vast majority of apprentices were white.

As apprenticeships are open to individuals of all races, and in some instances both sexes, it makes sense from the point of view of industry, the individual, and society, that the best person for the job be selected from among applicants. Given the very different educational and social backgrounds that exist among South Africa's different groups, it is imperative that methods used for selecting apprentices be evaluated with a view to achieving this end.

The problems in achieving fair employment practices are not limited to the selection process. Negative attitudes of employees towards the appointment of non-white and female apprentices can threaten proposed employment policies. Negative attitudes towards the job advancement of blacks has been documented amongst artisans and technicians (Ehlers, 1984; Terblanche & Lotz, 1986). The shortage of local technical colleges which non-whites may attend was also mentioned by a few respondents in this survey as hampering equitable employment practices. These issues are mentioned in the HSRC/NTB publication on artisan training in the RSA (1985) as requiring investigation.

Fair selection begins with recruiting the best people for artisan jobs, irrespective of race or sex. Recruitment methods should be designed with this in mind. Advertising in daily newspapers was noted as the method most respondents considered most effective. Advertising needs to be explicit about when jobs are open to both sexes and all races. Industry could play a vital role in participating more directly in school vocational guidance programmes, and in this way create a better awareness of, and knowledge about, different trades and apprenticeships. While there appear to be many applicants for certain apprenticeships, organizations generally felt applicants are not of the required standard. If a better image and awareness for certain trades is created better quality applicants may be attracted.

The recruitment method most highly associated with the employment of a greater proportion of Asian, black, and coloured apprentices is promotion from within the company. It is the author's opinion that promotion from within organizations constitutes a useful way (although it should not be the only way) of achieving a greater percentage of successful Asians, blacks and coloureds in the workforce, as many of the more traditional selection techniques are questionable in respect of their fairness in selecting from different cultures. One

respondent indicated that his company employs blacks as artisan aides. This work enables the organization to gain first-hand knowledge of how efficiently these artisan aides perform, and consequently how well they are likely to succeed in an apprenticeship.

Psychometric tests are frequently used by organizations, particularly the larger organizations who have special staff trained to administer tests and conduct their own validity studies. Although psychometric tests have been the subject of much controversy, and considered by some to be culturally biased, there are many individuals who endorse the usage of well-constructed psychometric tests. Hunter & Hunter (1984) and Schmidt & Hunter (1986) argue from findings in the USA that professionally developed cognitive tests are valid predictors of training and job performance for all groups. But as noted in the introduction, this does not necessarily apply in South Africa. Tests used in the South African context need to be specifically evaluated with regard to cultural bias, and used fairly. Some respondents stressed the need for "culture-fair" psychometric tests.

The concern over fairness in testing has led many employers, particularly in the USA and UK, to consider alternative selection methods. One method which has attracted a considerable amount of interest is work sample/trainability testing. Work sample testing is usually perceived to be one of the fairer and more relevant selection methods by assessors and all groups of examinees (Robertson & Kandola, 1982; Robertson & Mindel, 1980; Schmidt et al, 1977). In addition, work sample tests in the USA have been found to have validity coefficients as good as or slightly better than psychometric tests (Hunter & Hunter 1984; Robertson & Mindel, 1980). Robertson & Mindel (1980) point out the advantages of work sample tests: Their predictive validity is as good as or slightly better than ability tests; they have high content and face validity; and they can serve as a type of job preview, enabling candidates to obtain a more realistic assessment of what the work will entail.

Work sample tests do however tend to be relatively job specific. Smith & Downs (1975) point out that this sort of assessment may require a process of continually inventing and revising tests to cover additional jobs and job changes. It must also be borne in mind that not all groups will be in a position to gain equal access to opportunities or experience. The previous experience of an applicant needs to be considered when using work sample tests. Watt (1987) recommends that when selecting apprentices, work sample/trainability testing be combined with the use of standardized psychological tests. Several respondents also mentioned that tests assessing motor skills would be useful.

It is recommended that consideration be given to investigating a selection strategy comprising well-constructed psychometric tests, evaluated as to their bias content, as well as trainability/work sample testing. The White Paper and HSRC/NTB recommendations favour the introduction of modular training for apprentices to attain artisan status. According to Watt (1987) the introduction of modular training could prove useful in the design of trainability/work sample testing.

She proposes that aspects of modules could themselves be incorporated into work sample/trainability tests. This suggestion seems feasible as 31,8% of respondents indicated already using modular training as part, or all, of their apprentice training programme.

Increasing technological advances have impacted upon apprentice selection and training. This trend seems likely to continue. Technological advancement affects apprentice selection and future manpower requirements as it leads to changes in the composition of the work force, skill requirements and training needs. Developments may also lead to a reduction in the number of artisans required, and/or an increasing overlap between the work of the artisan and technician. The ILO (1983) reports that technological development often results in a reduction in the number of workers required, particularly in the directly productive activities, coupled with a trend towards greater manpower requirements in preparatory and controlling activities. Kanawaty (1985) believes that a massive rise in the number of technicians will occur in Europe by 1995. His projections reveal that the technician sector should be expected to increase from 6% to 40% of total employment. This increase will be at the expense of craftsmen, semi-skilled and unskilled workers.

Technological advancement often places greater demands on cognitive skills. This survey reveals that many organizations are setting higher minimum educational requirements for admission to apprenticeships; some are insisting on matric with mathematics and science. This in turn has affected the intake of apprentices, as many job-seekers at that level prefer white-collar work. A few organizations appear to insist on higher schooling requirements for non-whites, and blacks in particular. This could result in fewer non-white apprentices being available for an apprenticeship. Visser (in Finance Week, 28 July - 3 Aug, 1988) states that many blacks meeting the required educational qualifications (often matric with mathematics and science) do not want to perform manual work. This reaction is related to the poor image that artisan work seems to have. The negative image of many trades coupled with ever increasing technological advances may severely reduce the number of suitable applicants.

On the other hand, technological advances often result in a reduction in the physical demands of the job; this should render apprenticeships more suitable for women (ILO, 1983). It should be borne in mind that the effects of technological developments may be altered by sanctions. Companies may find it difficult to keep up to date with the latest overseas advancements.

The results of this survey indicate that many employers favour a policy of equal or fair employment. It should be remembered, however, that there is no single definition of these terms. Employers and workseekers are likely to differ on what constitutes equality or fairness; members of different cultural groups are also likely to differ. In addition to favouring equitable selection, 6,8% of respondents indicated they have bridging programmes for apprentices from disadvantaged backgrounds. The majority of all respondents

(64,3%), responded positively to the idea of introducing pre-appenticeship training for people from disadvantaged backgrounds. Several organizations indicated that 'disadvantaged' includes people with learning disabilities, as well as those with impoverished social or family backgrounds.

To achieve equitable and efficient selection across South Africa's diverse groups with their vastly different social and educational backgrounds is a great challenge. Interviews and application forms need to be used fairly. Psychometric tests need to be evaluated as to their bias content, and guidelines on the fair use of these established. Ideally, the industry concerned, government, and employee bodies should all participate in the framing of these guidelines. Work sample/trainability and psychomotor tests need to be considered for implementation in selection programmes. It may also be fruitful to consider implementing some novel selection techniques, such as those based on modular training. And it is imperative that reliability and validation studies be conducted to ascertain the efficiency, as well as the fairness, of apprentice selection.

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APPENDIX A LIST OF TRADES COMPRISING VARIOUS TRADE CATEGORIES

TRADE GROUP	TRADE
Bookbinding/ruling	Bookbinding Bookbinding/ruling Printers' warehousing Ruling
Bricklaying/plastering/ tiling	Bricklaying Bricklaying (refractory) Bricklaying (chemical) Plastering Stone mason work Wall and floor tiling
Carpentry/woodwork	Boatbuilding and shipwright work (wood) Cabinetmaking Cabinetmaking (including veneering) Cabinetmaking (including framemaking) Carpentry Carpentry and joinery Framemaking (including chairmaking) Furniture machining Furniture polishing Furniture woodmachining Furnituremaking Joining Machining (wood) Patternmaking Shipbuilding Shipwright work Shopfitting (wood) Veneering Woodcarving Woodcarving (hand) Woodmachining Woodworking (carpentry and joinery)
Compositing	Composing Composing (including machineminding) Monotype castermindermechanics Stereo typing
Diesinking/pressing/ engraving	Die and press toolmaking Die modelmaking Diesinking and engraving Photogravure engraving Photolithography/process-engraving Engraving and diesinking Toolmaking Tool and jigmaking Tool, jig and diemaking

Electrical (heavy current)	Aircraft electrical work Armaturewinding Automotive electrical work Diesel electrical fitting Electrical work Electrical work (construction) Electrical fitting Electrical wirework Electrical work (engineering) Electrical fitting (electrical motivepower) Electrical work (armaturewinding) Millwright work (electromechanics) Printers' electrical work
Electronics	Aircraft electronics Electronics
Electroplating	Electroplating
Fitting	Aircraft engine fitting Airframe fitting Armaments fitting Automotive engine fitting Construction plant mechanics Dieselfitting Fitting Fitting (light armaments) Machinefitting (including hydraulics) Marinefitting
Hairdressing	Hairdressing, ladies and gents
Instrument mechanics	Aircraft instrument mechanics Instrument mechanics (industrial) Instrument mechanics (process control systems) Instrumentmaking Instrument mechanics Instrument mechanics (industrial) instrumentation and process control)
Jewellery	Diamond brillianteering Diamond crossworking Diamond cutting Diamond sawing Diamond and jewel setting Diamond and jewel setting (excluding marcasitesetting) Engraving Mounting and precious metalworking Precious metalworking and mounting
Machine minding	Cartonmaking

	Continuous stationary machineminding Corrugated board and container machineminding Gravure machineminding Letterpress work Lithography Machineminding (including composing) Machineminding (packaging) Rotary letterpress machineminding Rotary offset machineminding Stationery and envelope machine adjusting
Machine and toolsetting	Machine and toolsetting Rolltool and templatemaking
Maintenance mechanics	Aircraft maintenance mechanics Aircraft mechanics Diesel mechanics Domestic appliance mechanics Earthmoving equipment mechanics Fuelinjection-pump mechanics Lift mechanics Outboard and inboard engine mechanics Motor mechanics Motorcycle and scooter mechanics Printers' mechanics Refrigeration mechanics Refrigeration mechanics (commercial) Scale fitting Tractor mechanics Tractor mechanics and agricultural machinery mechanics
Metalworking	Aircraft metalworking Aircraft sheetmetalworking Architectural metalworking Automotive body repairing Carriage and wagon fitting Chemical plumbing (including sheetmetal working) Coppersmith work Marine pipefitting Motorvehicle body building Panelbeating including spraypainting Plumbing Sheetmetalworking Shopfitting Vehicle bodybuilding (metal)
Moulding	Moulding
Painting/spraypainting	Aircraft spraypainting Painting

	Painting and decorating Signwriting Spraypainting
Plastics and fibreglass	Plastics and fibreglass work Vehicle bodybuilding (composite)
Radio/radar/communications	Aircraft radar mechanics Aircraft radio mechanics Aircraft radiotrician work Aircraft radar/radiotrician work Communications radiotrician work Domestic radio servicing Electrical work (signals) Electrical work (communication) Radio and television mechanics Radio communication servicing Radiotrician work (audio) Radiotrician work (communication) Telecommunications electrical work Telecommunications mechanics
Rigging	Rigging Rigging and rope work
Saw doctoring	Saw doctoring
Turning/machining	Automotive machining Automotive machining and fitting Fitting and turning Fitting (including machining) Machine and toolsetting Machine tool setting Millwright work Rollturning Turning Turning (including machining)
Upholstering/trimming	Automotive trimming Sailmaking and upholstery Trimming Upholstering
Welding/plating/boilermaking	Aircraft welding Blacksmith work Boilermaking Boilermaking/welding Plating Plating/boilermaking Plating (including welding) Welding

1. GENERAL INFORMATION

1.1 Name and address of organization:

.....

1.2 Name of person responsible for completing questionnaire:

.....

Designation/title :.....

Major responsibilities:

.....

Telephone number:

1.3 Date:

1.4 Industry of major activity:

(Please make a cross in the appropriate box.)

Aerospace
Automobile
Building
Diamond cutting
Elect. supply
Electrotechnic
Explosives
Furniture
Government
Hairdressing
Jewellers

Local authorities
Metal industries
Mining: Coal
Other

Motor
Printing
Sugar
Transport
Tyre & rubber
Other (Please specify).....
.....

1.5 Is your organization a subsidiary/division of a larger organization?

Yes	No
-----	----

If your response was yes, please give the name of the organization.

.....

1.6 Total number of employees
in your organization/divi-
sion

Under 10	10-50	50-200	200-1000	1000+
----------	-------	--------	----------	-------

- 1.7 In the table below please fill in the number of apprentices employed by your organization. Apprentices undergoing military service should be included. (Consult Appendix A for a list of trade categories.)

- 1.8 How many apprentices did your organization indenture in 1986?.....
- 1.9 How many apprentices does your organization intend indenturing/has your organization indentured for in 1987?
- 1.10 How many apprentices are currently completing military service?

2. RECRUITMENT

2.1 Which of the following methods does your organization regularly use to recruit applicants for apprenticeship?

Advertising in "Opportunities for School Leavers"	
Advertising in daily newspapers	
Advertising in magazines	
Advertising in weekly newspapers	
Visiting schools	
Distributing brochures to schools	
Encouraging pupil visits to organization	
Depending on unsolicited applications	
Depending on recruitment by word of mouth	
Using an employment agency	
Other (Please specify below).....	
.....	
.....	

2.2 Which method do you consider to be the most effective for recruitment?
(Please motivate your answer).....
.....
.....

2.3 Please list the names of newspapers, magazines or other publications advertised in when recruiting apprentices in 1986/1987.

.....
.....
.....
.....
.....

2.4 If you use external agencies for recruitment, please name them:

.....

.....

2.5 Please name the trade categories (if any) in which you are experiencing recruitment difficulties, and give possible reasons:

.....

.....

.....

.....

2.6 Has increased trade sophistication as a result of technological advances affected recruitment? ☐ Yes ☐ No

If your reply was yes, please explain how it has affected apprentice recruitment:

.....
.....
.....

3. SELECTION PROCEDURES

3.1 GENERAL INFORMATION REGARDING SELECTION

There are usually a number of decisions involved in the selection of an apprentice. The following section is designed to assist us in understanding how you reach a final decision on whether or not to employ a candidate. In this questionnaire the following definitions are to be used in answering the questions:-

Psychometric Tests (Aptitude Tests) are objective and standardized measures of abilities which are used to assess the applicant's training potential and work success. They are usually of a paper & pencil variety.

Psychomotor Tests are measures of specific motor skills.

Work Sample Testing/Trainability testing is usually done by exposing a prospective trainee to a short structured sample of the kind of work he is required to do on the job.

3.1.1 Do you have a documented policy with respect to the selection of apprentices from different population groups? ☐ Yes ☐ No

3.1.2 If your response was yes, are you planning to set ratios or quotas? (Please make a cross in the appropriate box.)
Ratios (percentage of the various population groups to be employed) ☐

Quotas (targeted numbers of members of a particular population group) ☐

Other (Please specify) ☐
.....
.....

- 3.1.3 How many of your apprentices are female?
- 3.1.4 If you have a documented policy with respect to the employment of female apprentices, please discuss.

3.1.5 Which selection procedures does your organization use to select apprentices?

Application forms	<div style="border: 1px solid black; width: 60px; height: 100px; margin: 0;"></div>
Interviews	
Psychometric tests	
Psychomotor tests	
Work sample tests	
Medical examinations	
Other (Please specify)	
.....	

- 3.1.6 Do you follow the same selection procedure for all trades?

Yes	No
-----	----

 If your response was no, please discuss the different procedures used for different trades and give reasons for this.
-
-
-
-
-
-
-
-
-

3.2 **ADMISSION REQUIREMENTS**

- 3.2.1 In the last two years have you found it necessary to raise the minimum levels of schooling required as entrance to:

1. all of the trades in your organization?	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>Yes</td><td>No</td></tr></table>	Yes	No
Yes	No		
2. some of the trades in your organization?	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>Yes</td><td>No</td></tr></table>	Yes	No
Yes	No		

If your response in either case was yes, is the higher schooling requirement due to:

Technological advances	<div style="border: 1px solid black; width: 30px; height: 40px; margin: 0;"></div>
Recession	
Other (specify)	

If your answer to 2 was yes, please list those trades within your organization for which minimum schooling requirements have been raised

.....

.....

3.2.2 In terms of the employment practice within your organization, please list the trades for which you employ apprentices and give the minimum schooling requirements set for each trade by your organization.

ENTRY REQUIREMENTS (MINIMUM SCHOOLING LEVEL & COMPULSORY SUBJECTS)

[illegible]

KEY: M= Maths S=Science O=Other

3.2.3 Indicate which criteria you take into account when considering employing an individual as an apprentice. Of those criteria marked "yes", rank the most important as "1", the next most important as "2", etc.

	Yes	Rank Order
Age of applicant		
Area where applicant currently resides		
Sex of applicant		
Population group of applicant		
Possession of driver's licence		
Completion of military service		
Parents' employed by organization		
Parents' occupation		
Minimum schooling level		
Entrance examination results		
*Psychometric test results		
*Psychomotor test results		
*Work Sample test results		
Other (Please specify)		
.....		
.....		

*Please refer to the definitions provided on page 4.

3.3 APPLICATION FORMS

3.3.1 Do you use an application form as part of your apprentice selection procedures? Yes No

If your response was no please proceed to question 3.4.

3.3.2 Do you have a standard application form for applicants of all population groups? Yes No

3.3.3 If there is any particular information obtained from your application form which you feel is particularly useful in predicting apprentice job or training course performance please list the information in the table below.

- 1. Mark next to each whether you feel it predicts training or job performance.
- 2. Please indicate for which groups the information is predictive.

BIOGRAPHICAL INFORMATION	TRAIN-ING	JOB PER-FORMANCE	W	C	A	B

KEY: W=Whites C=Coloureds A=Asians B=Blacks

3.3.4 Are you satisfied with your application form?

Yes	No
-----	----

If no, please discuss its limitations:
.....
.....
.....

3.4 **PSYCHOMETRIC TESTING**

3.4.1 Do you use psychometric tests as part of your apprentice
selection procedure?

Yes	No
-----	----

(Refer to definition in section 3.1.)
If no please indicate why (then proceed to question 3.5)
.....
.....

3.4.2 Do you conduct psychometric tests within your organization or do
you use external organizations (e.g. the Depart. of Manpower)?

Within Company	External Organization	Both
----------------	-----------------------	------

3.4.3 If you use external organizations, please name them.
.....
.....

3.4.4 Are you satisfied with the services provided by the
above-mentioned organizations?

Yes	No
-----	----

3.4.5 If your answer was no, please explain why:
.....
.....

3.4.6 Do you use the same tests on all applicants
regardless of race?

Yes	No
-----	----

3.4.7 P e complete the following table on psychometric test usage:

TESTS USED FOR ALL POPULATION GROUPS

[illegible]

3.4.8 Have you developed in-company procedures or instruments for selecting apprentices?

Yes	No
-----	----

If yes, please discuss
.....

3.4.9 Do you employ an individual specifically trained to administer psychometric tests?

Yes	No
-----	----

3.4.10 Do you have the psychometric test results of artisans and apprentices on your staff record?

Yes	No
-----	----

3.4.11 Do you have training and/or performance appraisal results on these apprentices and artisans available?

Yes	No
-----	----

3.4.12 Have you ever examined the effectiveness of your selection procedures by relating psychometric test results to training success and/or job performance?

Yes	No
-----	----

3.4.13 Do you retain the answer sheets after applicants have been tested?

Yes	No
-----	----

3.4.14 How useful do you consider psychometric tests in your selection procedures?

very useful	useful	not useful
-------------	--------	------------

3.4.15 Do you have a documented testing policy?

Yes	No
-----	----

3.4.16 If you have made any recent changes to your testing policy please indicate these.
.....
.....
.....
.....
.....

3.5 PSYCHOMOTOR TESTS

(See definition of psychomotor tests under section 3.1.)

3.5.1 Do you use psychomotor tests when selecting apprentices?

Yes	No
-----	----

If your response was yes, please provide details of tests used.
.....
.....
.....

3.6 WORK SAMPLE TESTS

(See definition of work sample tests under section 3.1.)

3.6.1 Do you use any trainability or work sample tests when selecting apprentices?

Yes	No
-----	----

If your response was no, please proceed to section 3.7.

3.6.2 Please describe the trainability/work sample tests you use. If you wish you may attach a printed form of the instructions and scoring procedure.
.....
.....
.....
.....

3.6.3 Do you use the same work sample tests for all trades?

Yes	No
-----	----

If your answer was no, please discuss.
.....
.....

3.7 INTERVIEW PROCEDURES

3.7.1 Do you use an interview as part of your selection procedures?

Yes	No
-----	----

If your response was no, please proceed to section 4.

3.7.2 Do you use a panel interview when selecting apprentices?

Yes	No
-----	----

If your answer was yes, please give the job titles of the persons on the panel.
.....
.....

If your response was no, please give the job title/s of the interviewers who see the applicant on a one-to-one basis.

.....
.....

3.7.3 Do you have a particular set of questions you ask when interviewing prospective candidates?

Yes	No
-----	----

If your answer was yes, please attach a list of these questions to this questionnaire, indicating the type of information you feel they provide.

4. ADDITIONAL INFORMATION

4.1 If the recession has had a marked impact on your apprentice selection procedures, please indicate in what way your procedures have changed.

.....
.....
.....
.....

4.2 If in the last two years there have been major technological changes which have impacted on apprentice training, please explain which trades are affected and how.

.....
.....
.....
.....

4.3 Which of the following methods do you use to train apprentices?

Competency based training
CRI method of instruction
Modular training
Off-the-job training centres
On-the-job training centres
Sitting next to Nelly
Other (please specify)
.....

Yes	No

4.4 Do you have any industry specific problems relevant to apprentice selection?

Yes	No
-----	----

If your answer was yes, please discuss.

.....
.....
.....
.....
.....

4.5 Are there aspects of apprentice selection not covered by this questionnaire which you have identified as requiring investigation?

Yes	No
-----	----

.....
.....
.....

4.6 Do trade unions play a role in determining selection policy?

Yes	No
-----	----

4.7 If yes, please discuss the role they play.
.....
.....
.....
.....
.....

4.8 Do you have bridging programmes for apprentices from disadvantaged backgrounds?

Yes	No
-----	----

4.9 Would you like to see the introduction of pre-apprenticeship training for people from disadvantaged backgrounds?

Yes	No
-----	----

---o0o---

List of Trade Categories

Bookbinding/ruling
Bricklayering/plastering/tiling
Carpentry/woodwork
Compositing
Diesinking/pressing/engraving
Electrical (heavy current)
Electronics
Electroplating
Fitting
Hairdressing
Instrument mechanics
Jewellery
Machine minding
Machine and toolsetting
Maintenance mechanics
Metalworking
Moulding
Painting/spraypainter
Plastics and fibreglass
Radio/radar/communications
Rigging
Saw doctoring
Turner/machining
Upholstering/trimming
Welding/plating/boilermaking

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- * undertaking, promoting, supporting and co-ordinating human sciences research
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