

# EMPLOYMENT TRENDS IN THE MINING AND MINERALS SECTOR

LONGITUDINAL ANALYSIS OF INFORMATION SUBMITTED TO THE MQA –  
YEARS 1 TO 8

**FINAL REPORT:**

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MINING QUALIFICATIONS AUTHORITY

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## **ACRONYMS AND ABBREVIATIONS**

MQA	Mining Qualifications Authority
SAQA	South African Qualifications Authority
NQF	National Qualifications Framework
WSP	Workplace skills plans
ATR	Annual training reports
SETA	Sector education and training authority
DoL	Department of Labour
MMS	Mining and minerals sector
PGM	Platinum group metals
FET	Further education and training
GET	General education and training
HET	Higher education and training
ABET	Adult basic education and training
SDL	Skills development levy

## EXECUTIVE SUMMARY

the MQA commissioned this longitudinal study to track changes over the full period – since the first year in which grant applications were submitted (2000/2001 or Year 1) until 2007/2008 (Year 8 of the levy-grant system), in the group of organisations that had submitted grant applications every year. The objective of this project was to identify the core group of companies that had submitted WSPs and ATRs to the MQA from its inception until Year 8 and to:

- describe these organisations in terms of their size and subsector
- analyse trends in this group of organisations in terms of total employment growth, geographic distribution of employees, race, gender and occupational composition. Trends in educational composition of employees were also analysed for the years in which information the educational levels of employees was submitted.

A total of 26 organisations or mining groups were included in this study. These organisations were registered under 47 SDL numbers. Eight of the organisations were very large ones which employed more than five thousand people, 12 employed between 150 and 4 999 employees, 4 employed between 50 and 149 people and only 2 employed fewer than 50 workers. The group of organisations included companies from all the mining sub-sectors, but no jewellery manufacturing firms.

Employment figures in these organisations varied over the eight-year period. The highest employment figures were reported in Year 1 when the organisations said that they employed more than 228 thousand workers. The lowest figures were reported in Year 6 when employment had dropped to less than 142 thousand. It appears as if some of the larger mining groups included contractors in the first two years and then omitted them afterwards. Variation in employment figures could also be the result of mergers and acquisitions or unbundling of organisations.

In some of the variables that were analysed no clear trends could be discerned:

- Total employment varied and did not show a clear trend of growth or decline;
- The geographical spread of workers shifted from year to year without a discernable pattern;
- The occupational distribution remained more or less the same except for an increase in the employment of plant and machine operators and assemblers relative to labourers and related workers;
- The educational profile of the workforce remained more or less unchanged except for a slight increase in the employment of people with matric.

However, clear trends were found in the population group and gender composition of the workforce. The employment of historically disadvantaged people in higher skilled positions increased systematically over the eight-year period. In the category legislators, senior officials, managers and owner managers Black workers increased from 5.2% in Year 1 to 24.8% in Year 8. Black

professionals increased from 14.4% in Year 1 to 31.3% in Year 8 and Black technicians and associate professionals increased from 27.3% in Year 1 to 45.9% in Year 8.

Women's share in employment increased from 2.8% in Year 1 to 7.3% in Year 8. The employment of women increased systematically in most of the occupational categories – also in the largest employment category – labourers and related workers – which used to be totally male domain.

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## INTRODUCTION

### 1.1 BACKGROUND

The Mining Qualifications Authority (MQA) is one of 21 sector education and training authorities (SETAs) established in terms of the Skills Development Act 97 of 1998.

According to the Skills Development Act the functions and duties of SETAs are to

- develop a sector skills plan within the framework of the National Skills Development Strategy;
- implement the sector skills plan;
- design, register, manage and promote learnerships;
- perform quality assurance functions;
- disburse levies collected from employers and pay grants according to sectoral priorities;
- liaise with the National Skills Authority who advises the Minister of Labour on the National Skills Development Policy and Strategy, the implementation of the Strategy and the allocation of subsidies from the National Skills Fund and
- liaise with the employment services of the Department of Labour.

The MQA, as all other SETAs, relies extensively on the co-operation of the workplaces registered with it in order to fulfil its functions and to give effect to the National Skills Development Strategy. The most important mechanisms for interaction between registered workplaces and the SETA are the annual mandatory grant applications, the workplace skills plans (WSPs) and annual training reports (ATRs) submitted to the SETA by employers. On an aggregate level, the grant application forms are important sources of information that can assist the SETAs in understanding the human resources profiles and development needs of their sectors, the development of sector skills plans and the setting of priorities for human resources development in the sectors.

The grant application forms contain, among other things, information on the profile of organisations and employees in the sector that enables the MQA to monitor trends in the sector and to track changes in the sectoral profile over time. The sectoral profile that is obtained through an annual analysis of the grant application forms is affected by the fact that it is not always the same organisations that submit grant applications. Therefore, the MQA commissioned this longitudinal study to track changes over the full period – since the first year in which grant applications were submitted (2000/2001 or Year 1) until 2007/2008 (Year 8 of the levy-grant system) - in the group of organisations that had submitted grant applications every year.

## **1.2 AIMS AND OBJECTIVES**

The objective of this project was to identify the core group of companies that had submitted WSPs and ATRs to the MQA from its inception until Year 8 and to:

- describe these organisations in terms of their size and subsector
- analyse trends in this group of organisations in terms of total employment growth, geographic distribution of employees, race, gender and occupational composition. Trends in educational composition of employees were also analysed for the years in which information the educational levels of employees was submitted.

## **1.3 METHODOLOGY**

Data from 2003 to 2008 was extracted in electronic format from the MQA's datanet system and was checked for accuracy and consistency. Data for the period 2000 to 2002 was extracted from the MS Access databases in which the data for those years had been captured.

The core group of companies that submitted WSPs throughout the period was identified and their data was extracted and analysed. Some of the large mining groups changed the way in which they grouped their respective companies or operations when they submitted WSPs. For example, in one year they would submit three different WSPs for three operations, but the next year they would submit only one. All the subsidiary companies of these mining groups were grouped together and were regarded as one organisation throughout the analysis.

## **1.4 STRUCTURE OF THE REPORT**

In the second section of this report the organisations that were included in the longitudinal study are described. The third section of the report deals with the geographic distribution of workers, while Section 4 describes the occupational distribution of the workforce. In sections 5 and 6 the population group and gender distributions are discussed respectively. Section 7 deals with the educational profile and the main findings of the longitudinal study are summarised in Section 8.

# 2

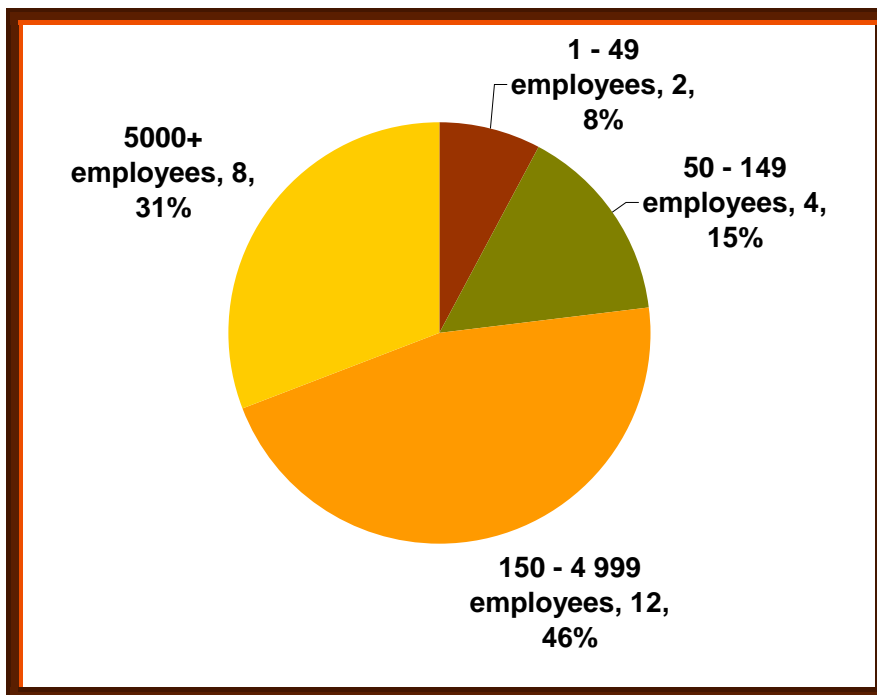
## ORGANISATIONS INCLUDED IN THE STUDY

### 2.1 NUMBER OF ORGANISATIONS

In this report the term “organisation” refers to a single operation registered under one skills development levy (SDL) number, or a collection of operations registered under one SDL number or a group of organisations that at some stage during the eight-year period under review linked two or more of their operations which were registered under different SDL numbers and submitted only one workplace skills plan (WSP) for those operations.

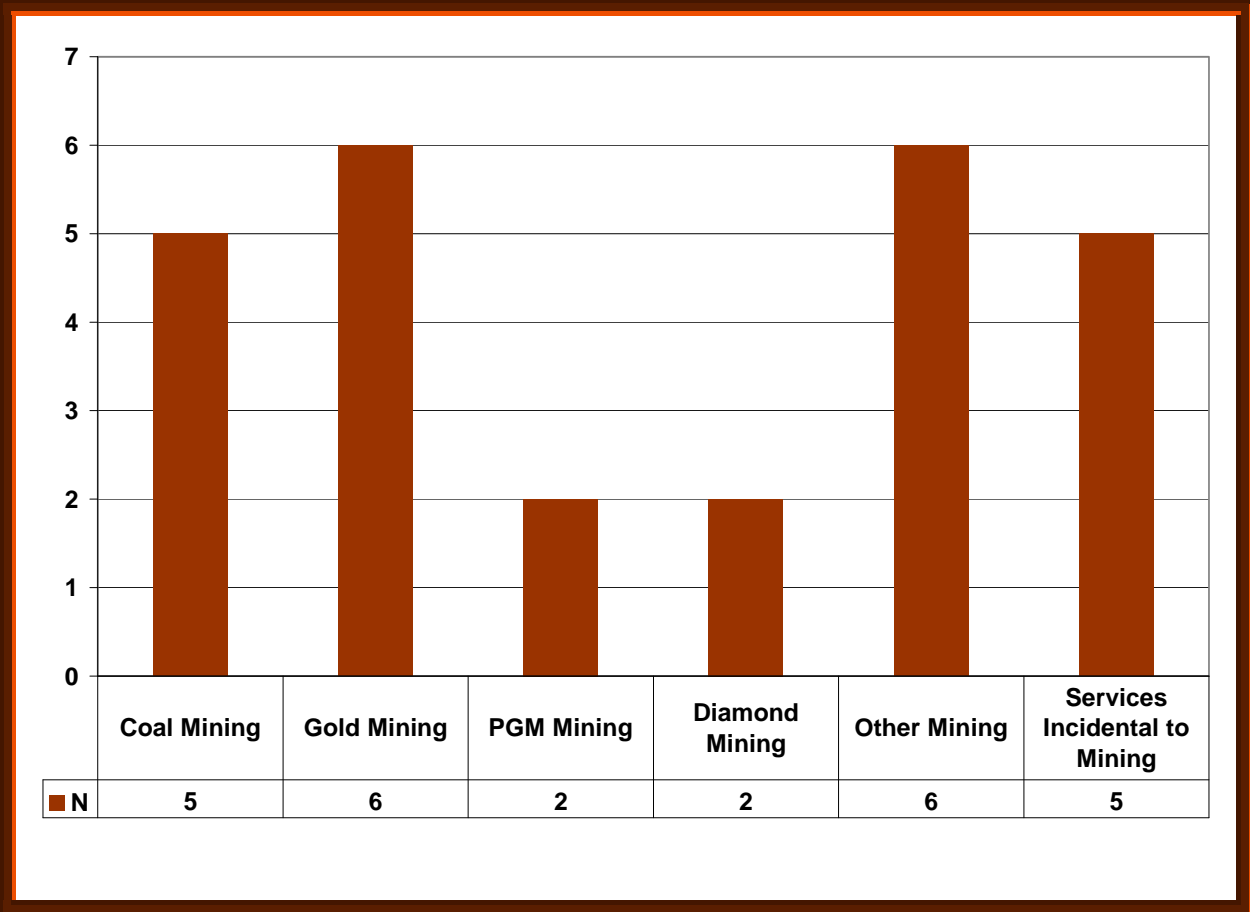
The organisations included in this longitudinal study are those that submitted WSPs to the MQA in every year since the inception of the levy-grant system in the 2000/2001 financial year (Year 1). A total of 26 organisations (as defined above) met this criterion. These organisations were registered under 47 SDL numbers.

The size distribution of the 26 organisations can be seen in Figure 2-1. Eight of the organisations were very large ones which employed more than five thousand people. A further 12 employed between 150 and 4 999 employees, 4 employed between 50 and 149 people and only 2 employed fewer than 50 workers.



**Figure 2-1**  
Organisations according to organisation size

The group of organisations included companies from all the mining sub-sectors: 6 each from the Gold Mining and Other Mining sub-sectors, 5 each from the sub-sectors Coal Mining and Services Incidental to Mining and 2 each from the sub-sectors Diamond Mining and PGM Mining (Figure 2-2).



**Figure 2-2**  
**Organisations according to subsector**

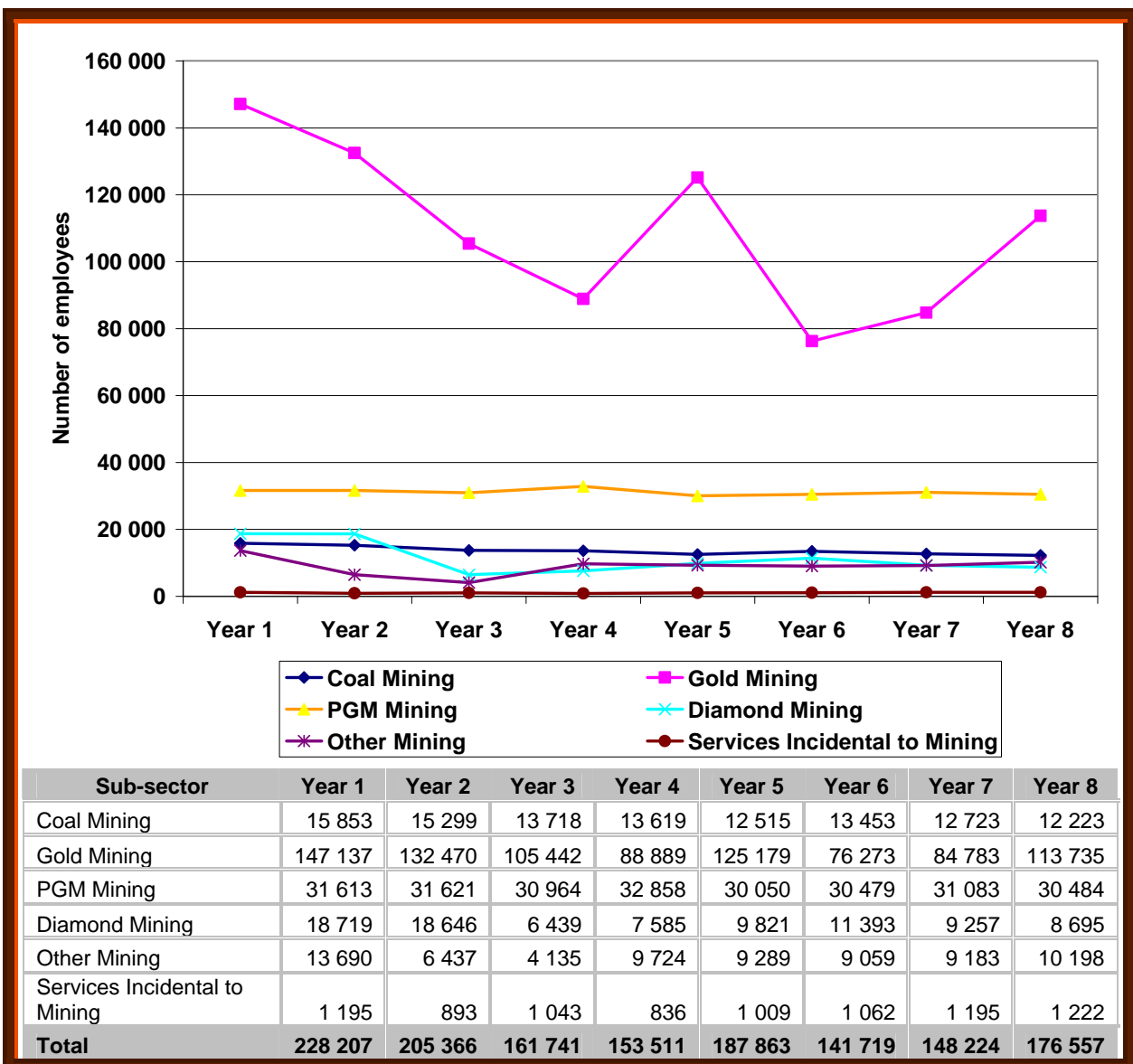
**2.2 TOTAL EMPLOYMENT**

Even though the same group of organisations was used throughout the longitudinal analysis employment in the group of companies varied substantially over the eight-year period. The highest employment figures were reported in Year 1 when the organisations said that they employed more than 228 thousand workers. The lowest figures were reported in Year 6 when employment had dropped to less than 142 thousand (Table 2-1). These variations could reflect actual changes in employment, but they could also have been influenced by other factors. In the first few years of the levy-grant system employers were uncertain whether they had to include contractors in their employment figures or not. It appears as if some of the larger mining groups included contractors in the first two years and then omitted them afterwards. Variation in employment figures could also be the result of mergers and acquisitions or unbundling of organisations – in other words changes in the structure of organisations in the sector – and not necessarily actual changes in employment in the sector itself.

**Table 2-1  
Employment according to organisation size: years 1 to 8**

Organisation size (Number of employees)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
1 - 49	343	352	357	285	333	358	356	67
50 - 149	366	280	327	405	351	406	548	606
150 - 4 999	19 888	19 760	17 493	19 518	17 269	17 434	16 997	16 753
5000+	207 610	184 974	143 564	133 303	169 910	123 521	130 323	159 131
<b>Total</b>	<b>228 207</b>	<b>205 366</b>	<b>161 741</b>	<b>153 511</b>	<b>187 863</b>	<b>141 719</b>	<b>148 224</b>	<b>176 557</b>

The total employment figures reported by the different subsectors are shown in Figure 2-3. The gold mining companies are by far the largest component of the organisations included in the longitudinal analysis. However, their employment figures varied dramatically over the eight-year period.



**Figure 2-3  
Employment according to sub-sector: years 1 to 8**

# 3

## GEOGRAPHICAL DISTRIBUTION

The geographical distribution of the workers employed by the organisations that were included in the longitudinal analysis can be seen in Figure 3-1. Most of the workers were based in Gauteng and in the North West Province. However, the geographical distribution of workers varied substantially over the eight-year period. In Year 1 22.9% of the workers were reported to live in North West and 37.6% in Gauteng. In Year 2 the percentage residing in North West had increased to 35.5% and in Year 3 it had increased to 57.7%. Over the same three years the percentage of workers living in Gauteng had decreased from 37.6% to 18.6%.



**Figure 3-1**  
Geographical distribution of employees

# 4

## OCCUPATIONAL DISTRIBUTION

The occupational composition of the group of companies that were included in the longitudinal study can be seen in Table 3-1. The occupational category legislators, senior officials, managers and owner managers varied between 0.6% and 1.6% of total employment. Professionals formed between 2.0% and 2.8% of total employment. Technicians and associate professionals varied between 4.7% and 6.9%. Clerical and administrative workers remained less than 3.5% of total employment for the whole period, but suddenly increased to 5.6% in Year 8. The craft and related trade workers dropped from 13.7% in Year 1 to 10.9% in Year 8. The two largest occupational groups, plant and machine operators and assemblers and labourers and related workers changed substantially over the eight-year period – although there was some variation during that period. Plant and machine operators and assemblers increased from 27.5% in Year 1 to 31.9% in Year 8 while labourers and related workers decreased from 46.8% in Year 1 to 39.5% in Year 8. A few factors could have contributed to the changes seen in the data:

- The inclusion of contractors in the first few years and their exclusion in the later years could have contributed to the decrease in the percentage of labourers and thus to the relative increase in the percentage of plant and machine operators and assemblers.
- Employers could have changed the classification of workers in these two categories.
- There could have been a certain degree of mechanisation in the sector which could have had this effect on the occupational composition.

**Table 4-1**  
**Occupational distribution of employees**

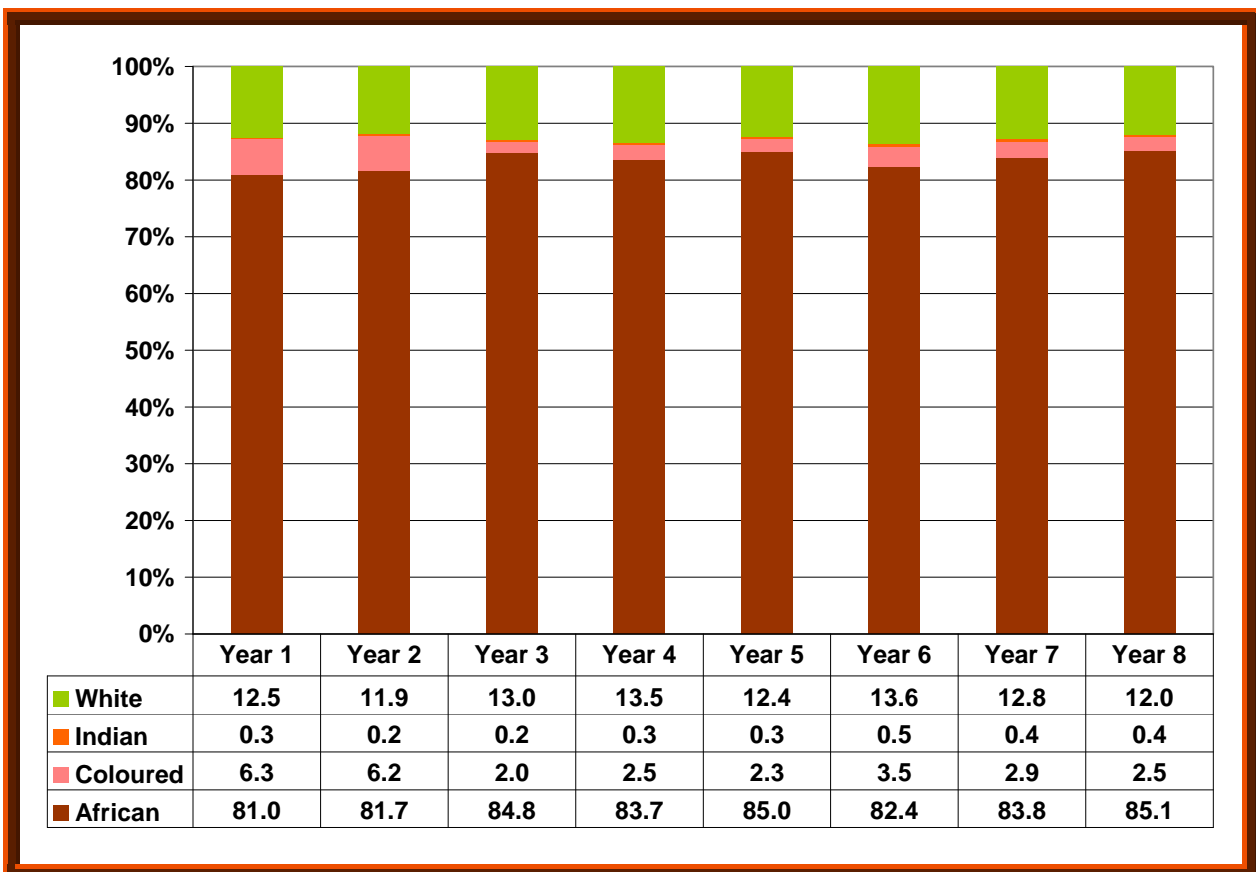
Occupational category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Legislators, Senior Officials, Managers and Owner Managers	0.6	0.6	0.9	1.6	1.3	1.5	1.5	1.0
Professionals	2.0	2.2	2.1	2.6	2.2	2.8	2.6	2.3
Technicians and Associate Professionals	4.8	4.7	5.7	5.2	5.7	6.9	6.6	6.5
Clerical and Administrative Workers	2.9	3.2	3.1	3.4	3.4	3.5	3.4	5.6
Service Workers, Shop and Market Sales Workers	1.6	1.7	1.7	1.8	1.6	1.1	1.3	0.9
Agricultural and Fishery Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craft and Related Trade Workers	13.7	13.9	9.4	10.2	11.2	10.9	10.7	10.9
Plant and Machine Operators and Assemblers	27.5	27.3	28.2	28.2	35.1	30.1	33.7	31.9
Labourers and Related Workers	46.8	46.5	48.2	46.1	39.1	41.1	39.8	39.5
Apprentices and Section 18 (1) Learners	0.0	0.0	0.6	0.7	0.5	2.2	0.4	1.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# 5

## POPULATION GROUP

### 5.1 OVERVIEW

The overall racial composition of the workers in the group of companies included in the longitudinal study did not change much over the eight-year period. African workers constituted between 81% and 85% of the workforce and Whites between 11.9% and 13.6%. Indians formed only 0.5% or less of the workforce. In years 1 and 2 employers reported that more than 6% of their workers were Coloureds. However, this figure dropped to 2.0% in year 3 and remained lower than 4.0% in the subsequent years (Figure 4-1).

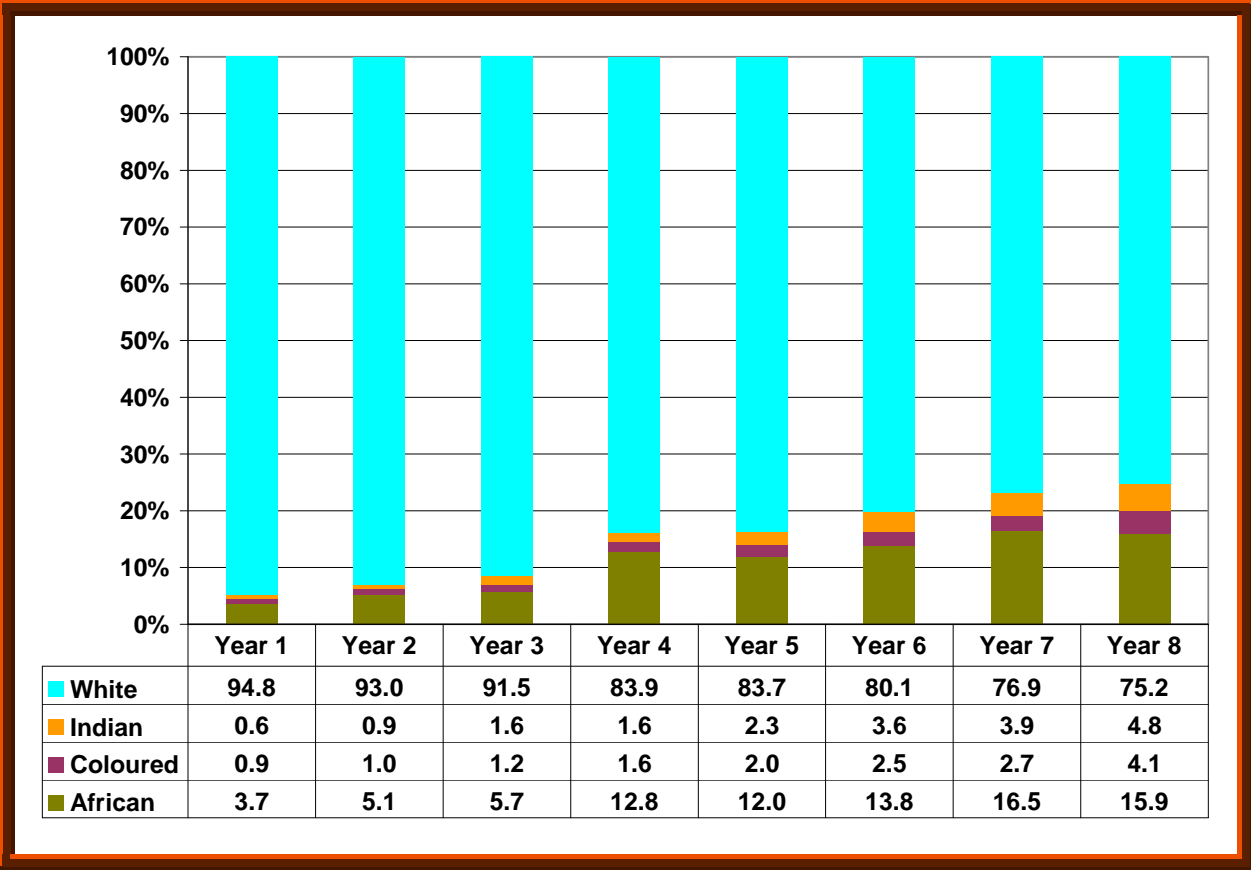


**Figure 5-1**  
Population group distribution of employees

### 5.2 LEGISLATORS, SENIOR OFFICIALS, MANAGERS AND OWNER MANAGERS

Although the overall racial profile of workers remained more or less the same, individual occupational categories changed systematically over the eight-year period. In Year 1 94.8% of the employees in

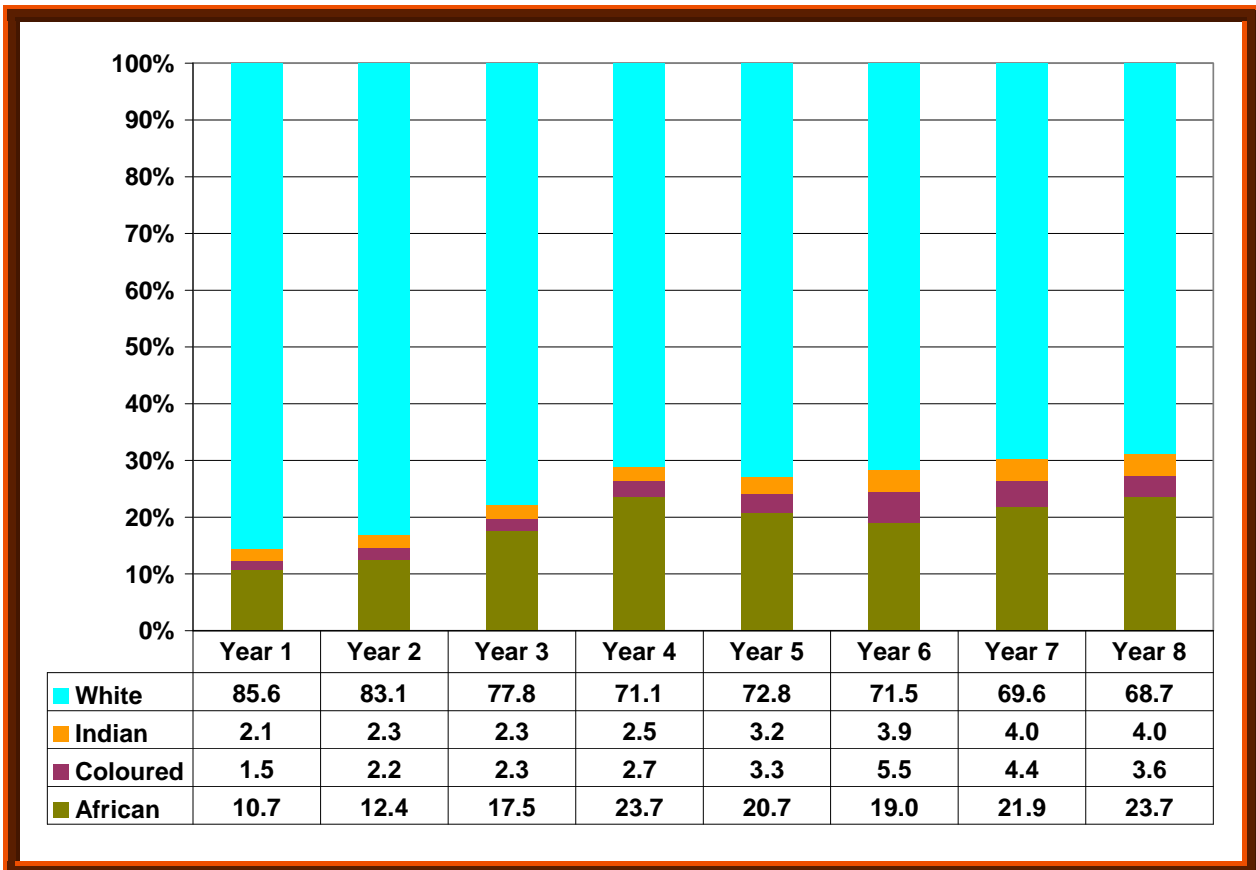
the occupational category legislators, senior officials, managers and owner managers were White. This figure dropped each year to 75.2% in Year 8. African managers increased from only 3.7% in Year 1 to 15.9% in Year 8. African managers increased from only 3.7% in Year 1 to 15.9% in Year 8. Coloureds increased from 0.9% in Year 1 to 4.1% in Year 8 and Indian managers increased from 0.6% to 4.8%. Although these changes were quite significant, the occupational category is very small (less than 2% of the total workforce) and therefore these changes did not have a visible effect on the overall population group composition of workers in the sector.



**Figure 5-2**  
**Population group distribution of legislators, senior officials, managers and owner managers**

### 5.3 PROFESSIONALS

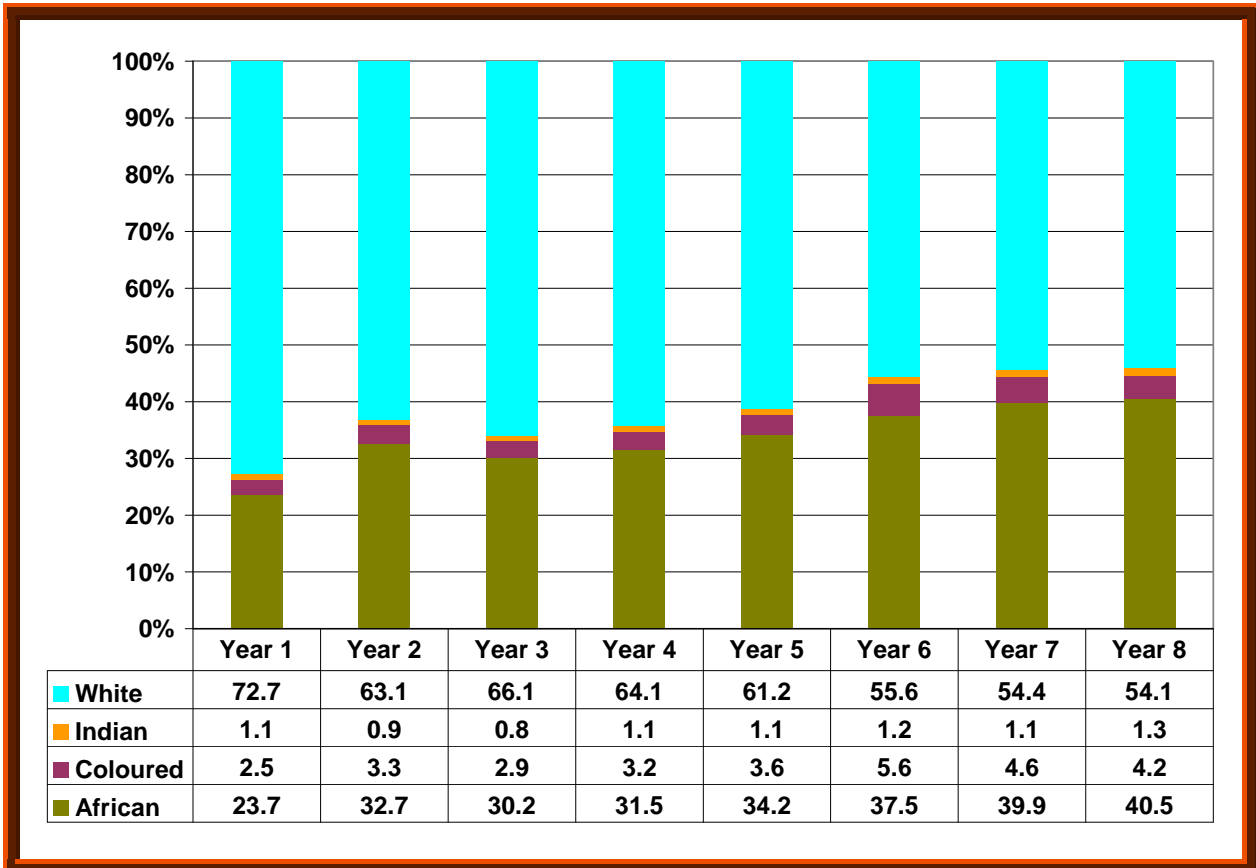
In Year 1 the majority (85.6%) of the professionals employed in the companies included in the longitudinal analysis were White. The percentage Whites dropped to 68.7% in Year 8. African professionals increased from 10.7% in Year 1 to 23.7% in Year 8. Indians increased from 2.1% in Year 1 to 4.0% in Year 8. Coloureds increased from 1.5% in Year 1 to 5.5% in Year 6 but then this percentage dropped again to 3.6% in Year 8.



**Figure 5-3**  
Population group distribution of professionals

## 5.4 TECHNICIANS AND ASSOCIATE PROFESSIONALS

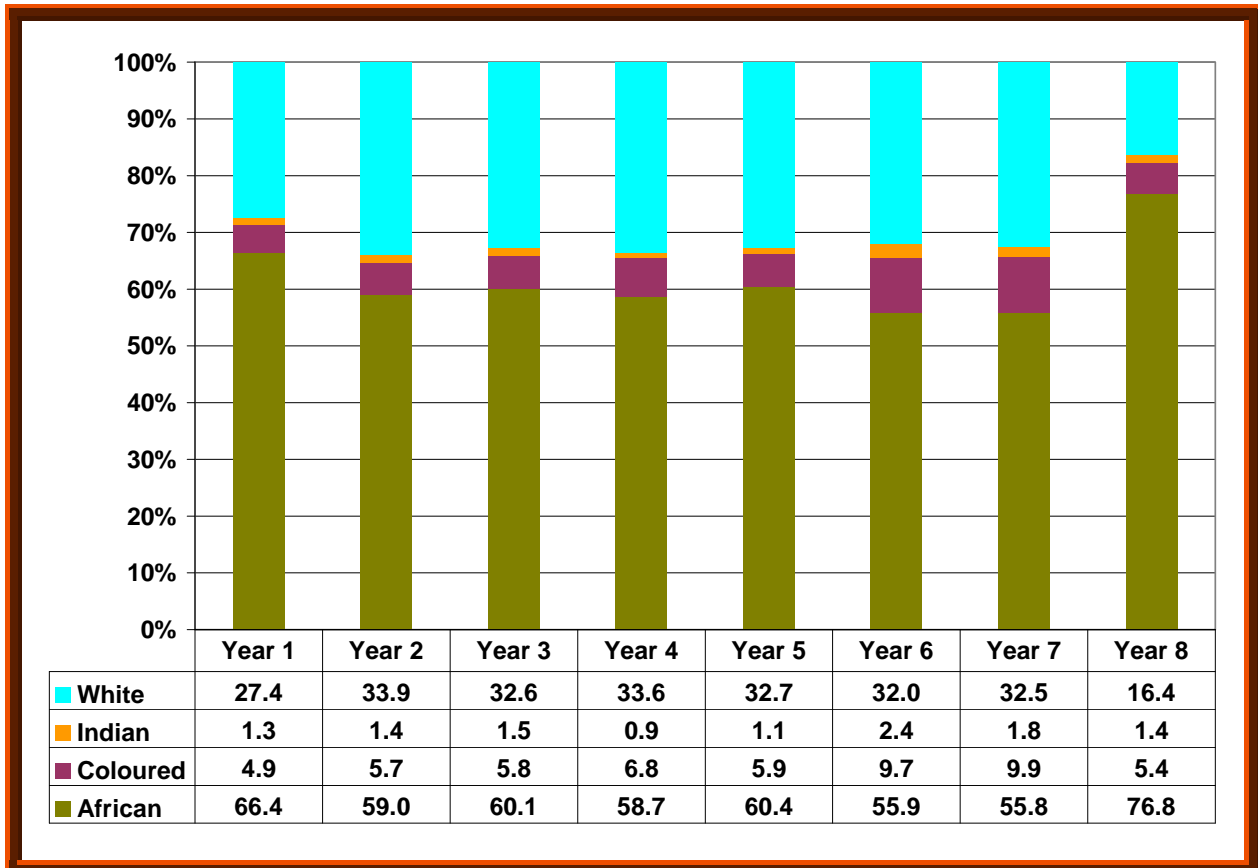
In Year 1 72.7% of the technicians and associate professionals were White. Although the population group composition of this occupational category varied somewhat over the eight-year period, there was a gradual decrease in the percentage Whites and an increase in the percentage Africans. By Year 8 only 54.1% of the workers in this occupational category were White. African workers increased their share from 23.7% in Year 1 to 40.5% in Year 8.



**Figure 5-4**  
Population group distribution of technicians and associate professionals

## 5.5 CLERICAL AND ADMINISTRATIVE WORKERS

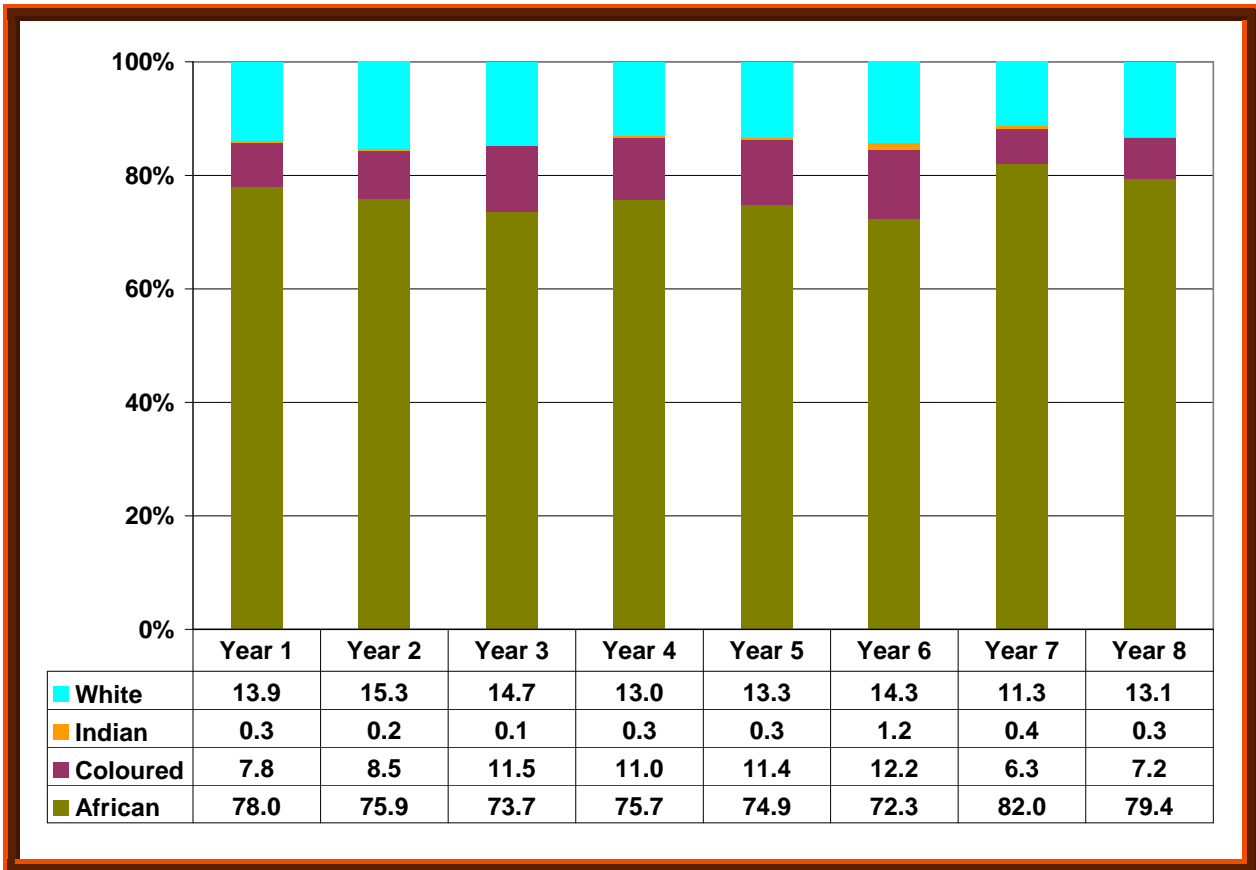
The majority of clerical and administrative workers employed in the organisations that were included in the longitudinal study were Black. In Year 1 African workers constituted 66.4% of all the workers in this occupational category. The percentage Africans decreased to 55.8% in Year 7 and then it increased quite dramatically to 76.8% in Year 8. The Whites employed in this category increased from 27.4% in Year 1 to 32.5% in Year 7. In Year 8 the percentage Whites dropped to 16.4%. The reasons for these dramatic shifts in Year 8 are not clear.



**Figure 5-5**  
Population group distribution of clerical and administrative workers

## 5.6 SERVICE WORKERS, SHOP AND MARKET SALES WORKERS

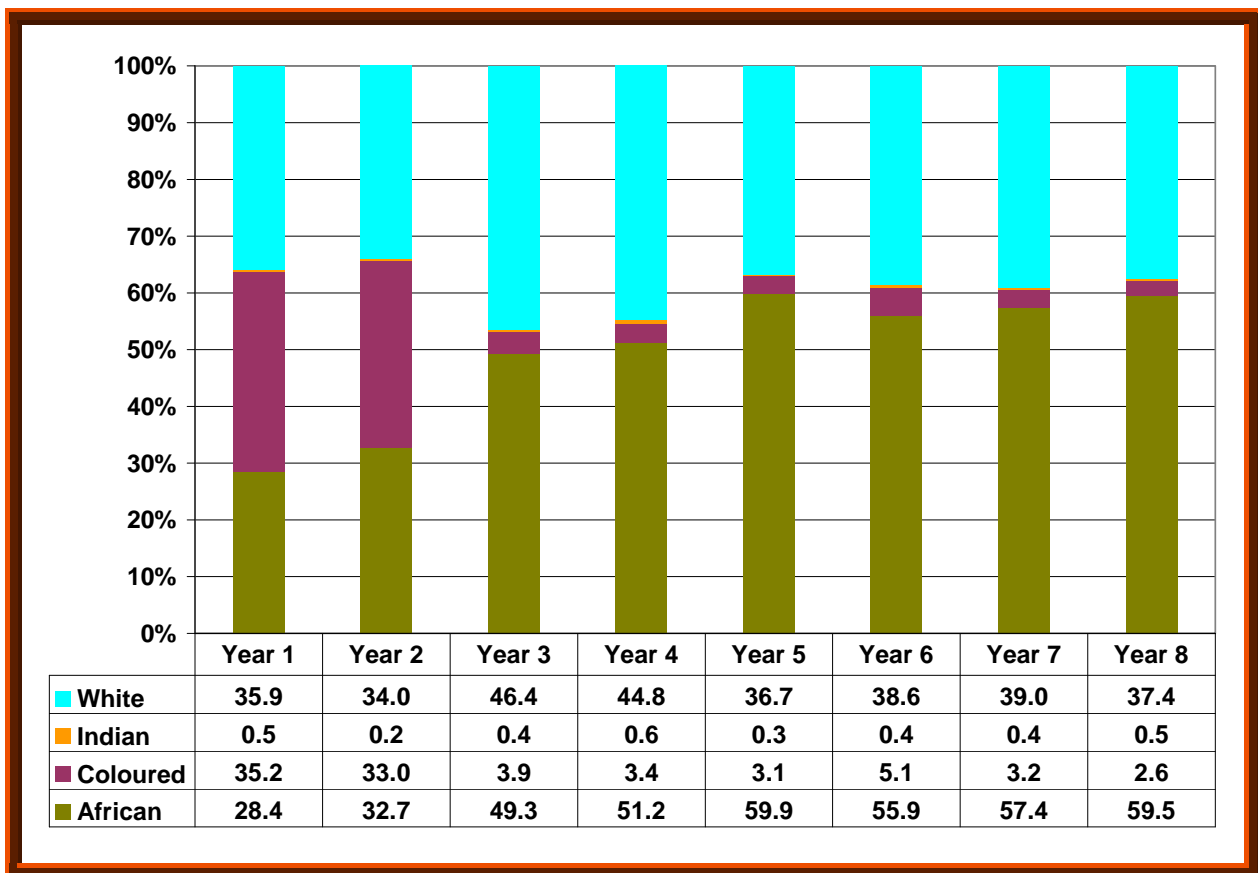
The occupational category service workers, shop and market sales workers is also a small category (less than 2% of total employment). The majority of workers in this occupational category are Africans – 78.0% in Year 1 and 79.4% in Year 8. Whites constituted between 11.3% and 15.3% of this group (Figure 5.6).



**Figure 5-6**  
Population group distribution of service, shop and market sales workers

## 5.7 CRAFT AND RELATED TRADE WORKERS

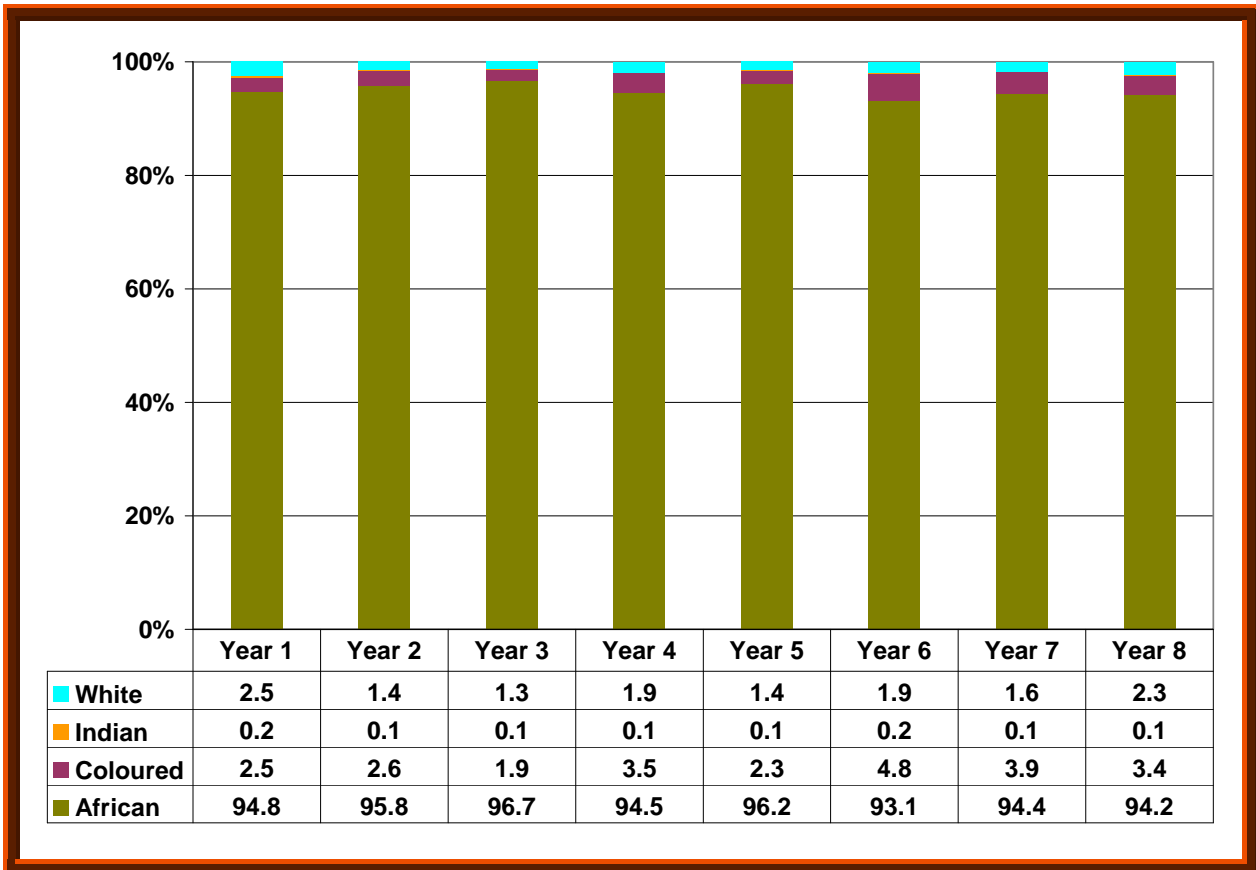
The occupational category craft and related trade workers include artisans and form approximately 11% of the total workforce. The racial figures reported for this occupational group varied significantly over the eight-year period. In Years 1 and 2 employers reported that 35.2% and 33.0% of the workers in this category were Coloured. However, from Years 3 onwards Coloureds constituted only 2.6% and 5.1% of the workers in the category. In Year 3 it was said that 46.4% of the craft and related trade workers were White, but in Year 5 this percentage dropped to 36.7%. At the same time the percentage African workers in the category increased from 49.3% in Year 3 to 59.9% in Year 5 (Figure 5-7).



**Figure 5-7**  
Population group distribution of craft and related trade workers

## 5.8 PLANT AND MACHINE OPERATORS AND ASSEMBLERS

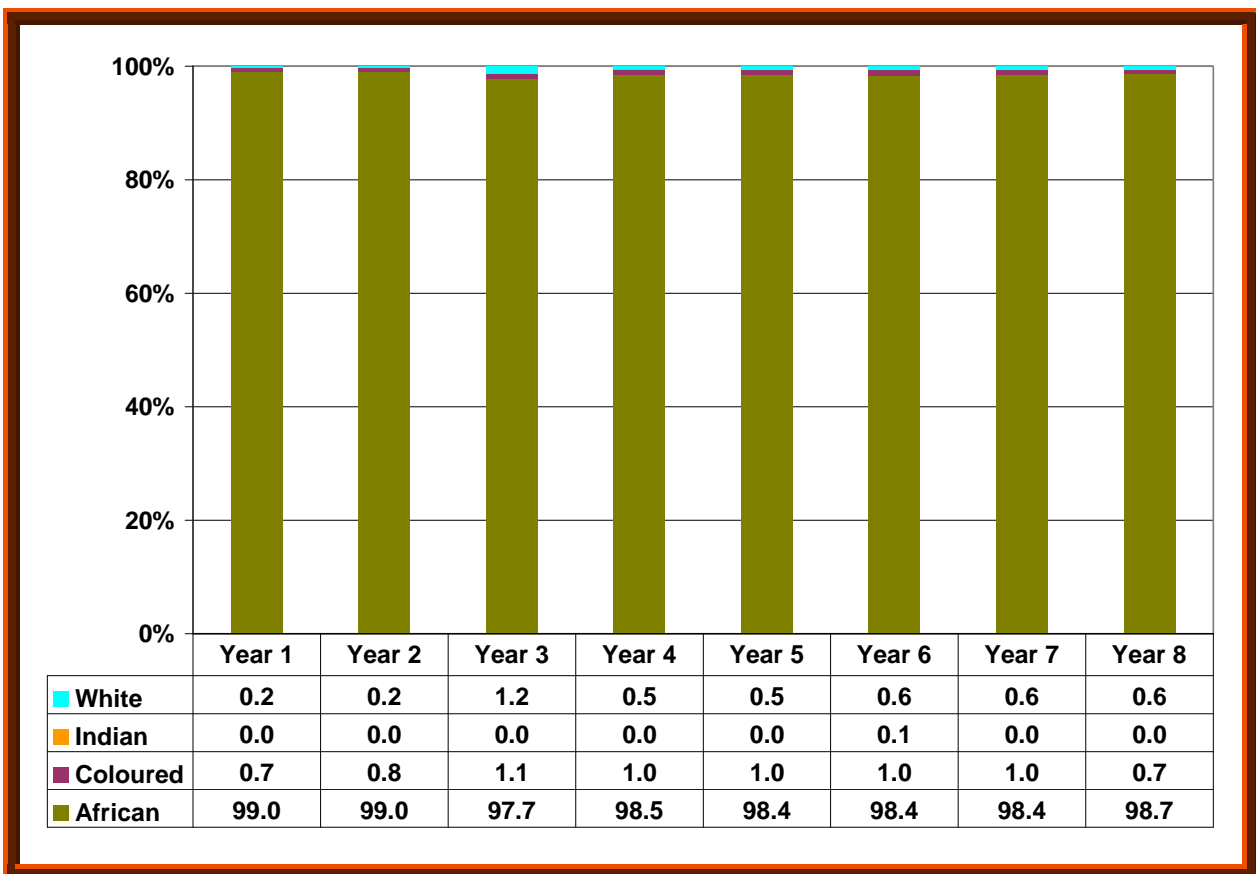
Approximately a third of the workers in the sector are classified as plant and machine operators and assemblers. Most of the workers (approximately 95%) of them are Africans. The percentage Whites in this category varied between 2.5% and 1.3%. Coloureds formed between 1.9% and 4.8% and Indians constituted only 0.1% to 0.2% of the operators category (Figure 5-8).



**Figure 5-8**  
Population group distribution of machine operators and assemblers

## 5.9 LABOURERS AND RELATED WORKERS

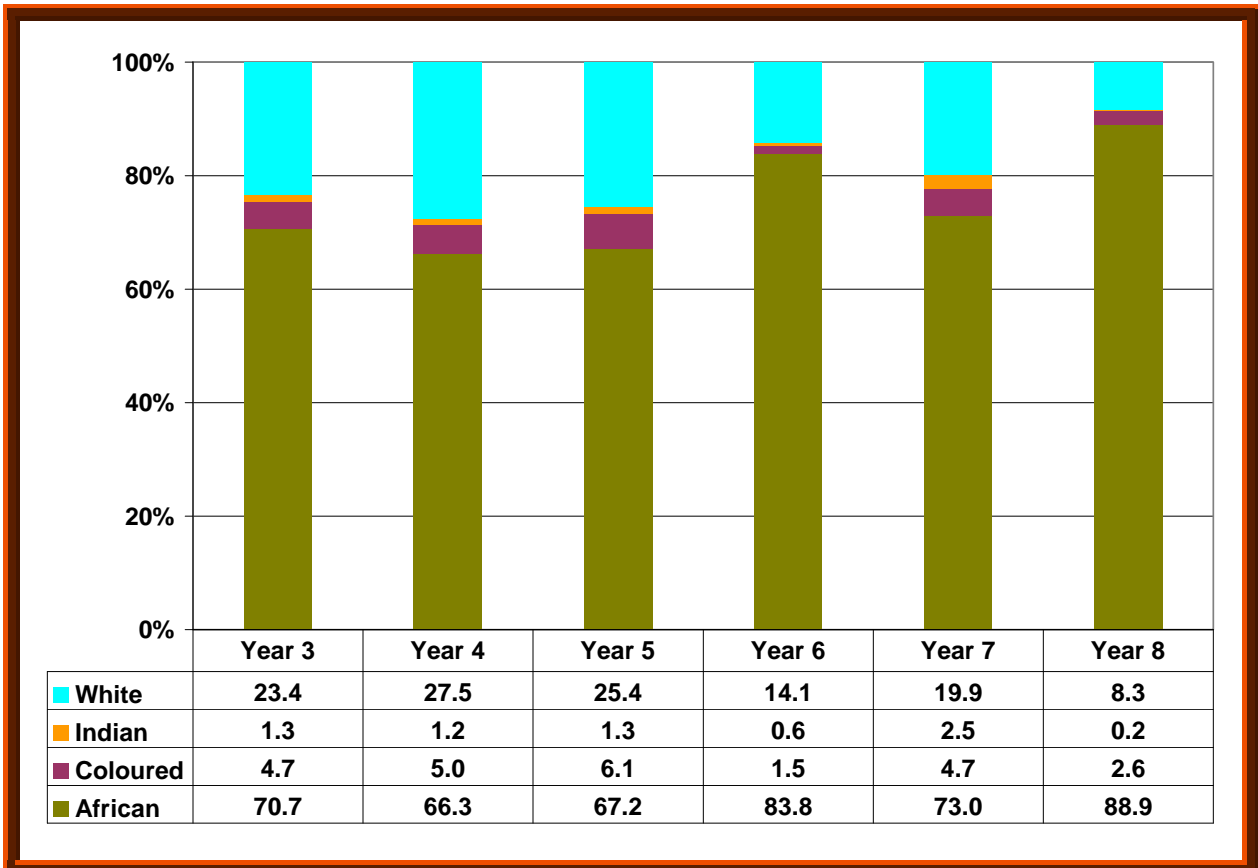
Labourers and related workers is by far the largest occupational category in the MMS and in the organisations that were included in this longitudinal study. In the first four years they formed almost half of the workforce. In years 5 to 8 this had dropped to approximately 40%. Almost all the workers in this category are African – between 97.7% and 99.0%. In most of the years under review Whites formed less than 1% of the labourers and Coloured formed just more than 1% of them. In all the years, with the exception of Year 6 there were no Indian workers in this category (Figure 5-9).



**Figure 5-9**  
Population group distribution of labourers and related workers

### 5.10 APPRENTICES AND SECTION 18 (1) LEARNERS

In the first two years of the mandatory grant system employers were not required to report on apprentices and learners separately. Throughout the period Year 3 to Year 8 the majority of apprentices and learners were African. The percentage Africans increased substantially in from 67.2 in Year 5 to 83.8% in Years 6. In Year 8 employers reported that 88.9% of their apprentices and learners were African. The percentage Whites decreased from 27.5% in Year 4 to only 8.3% in Year 8.



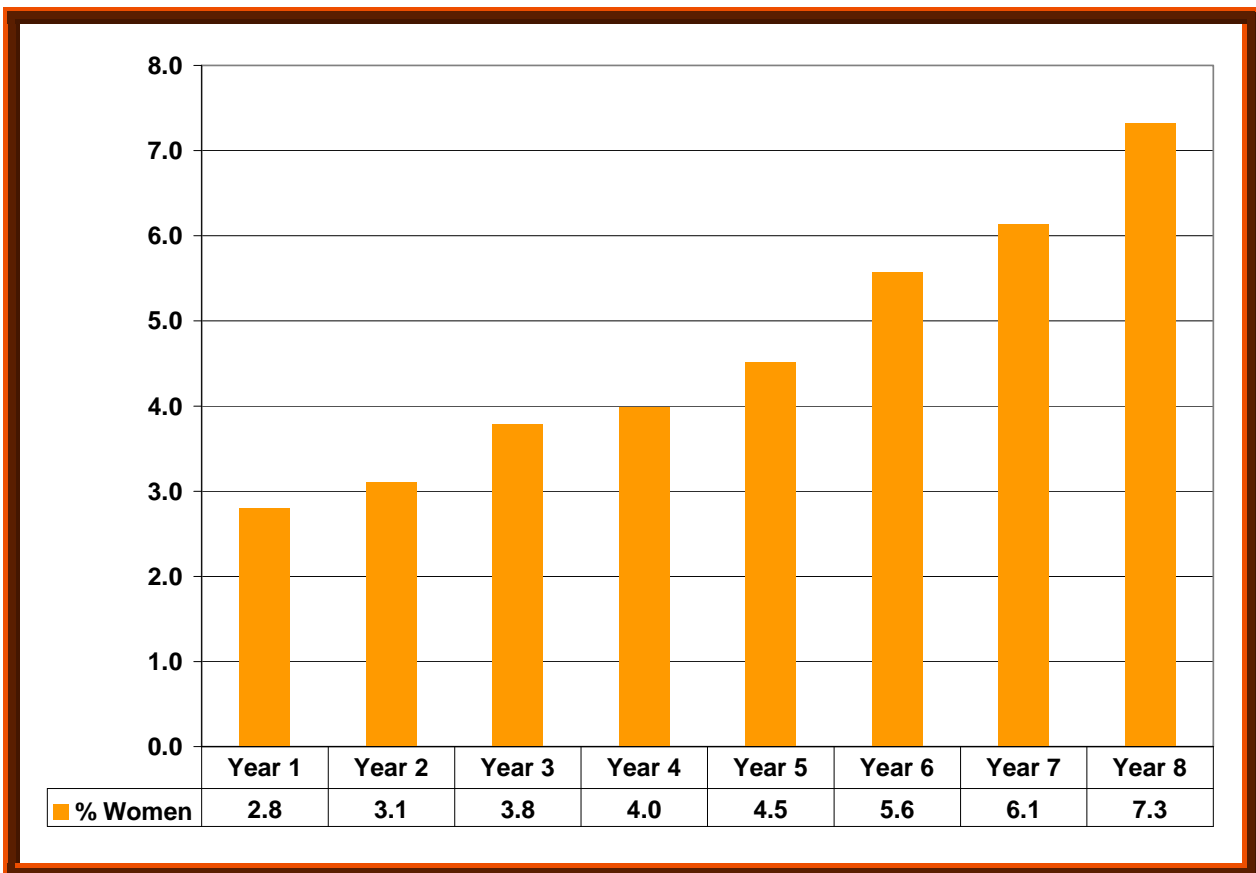
**Figure 5-10**  
Population group distribution of apprentices and section 18(1) learners

# 6

## GENDER

### 6.1 OVERVIEW

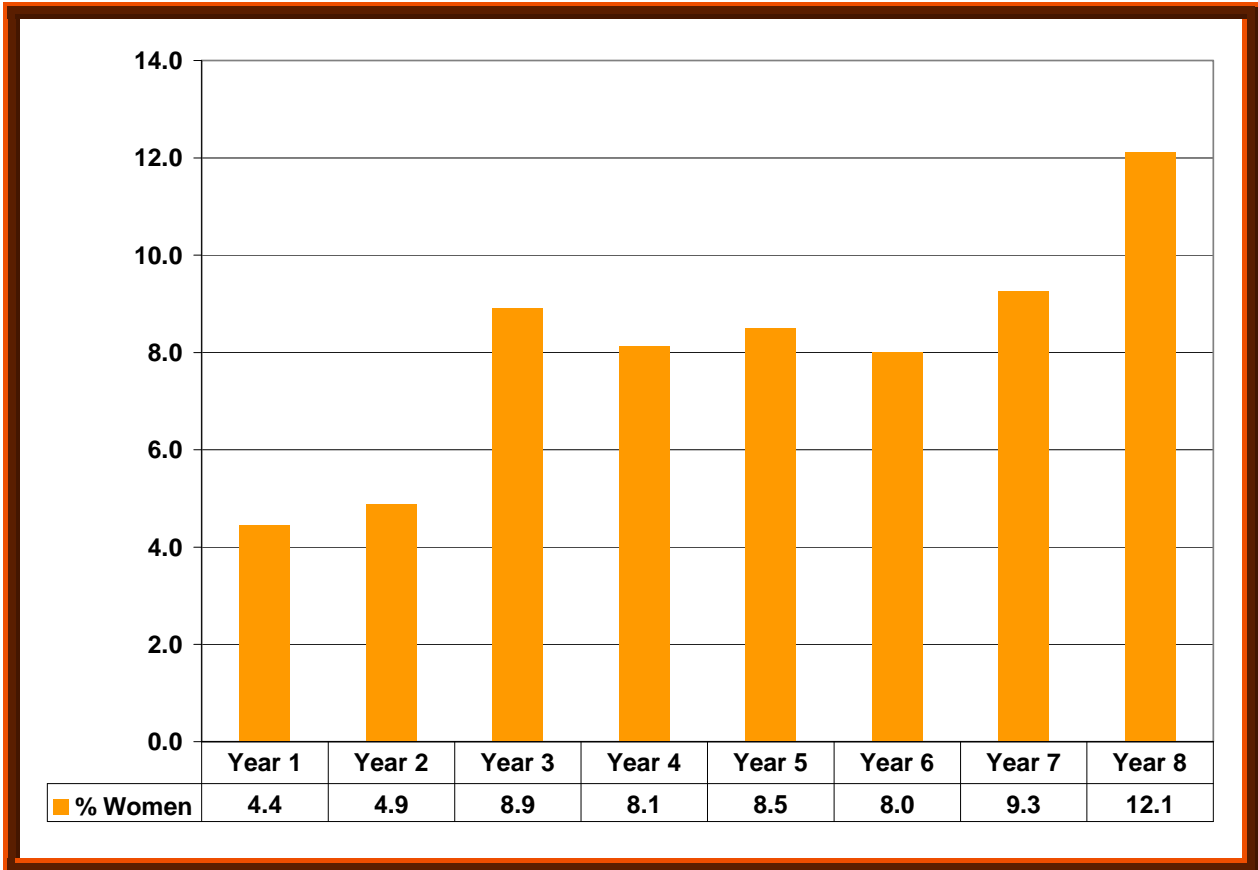
The monitoring of the employment of women in the MMS has become an important issue since the sector has committed itself in the Mining Charter (2004) to a change in its gender profile. Figure 6-1 clearly shows how the organisations that were included in the longitudinal study had systematically increased the percentage women over the eight-year period. In Year 1 only 2.8% of the workers in these organisations were women. By Year 8 women constituted 7.3% of the total workforce.



**Figure 6-1**  
**Percentage women employed**

## 6.2 LEGISLATORS, SENIOR OFFICIALS, MANAGERS AND OWNER MANAGERS

The percentage women in the occupational category legislators, senior officials, managers and owner managers increased from 4.4% in Year 1 to 12.1% in Year 8.



**Figure 6-2**  
Percentage women employed in the category legislators, senior officials, managers and owner managers

### 6.3 PROFESSIONALS

In Year 1 only 11.4% of the professionals employed in the organisations that were included in the longitudinal study were women. This percentage increased to 20.9% in Year 8.

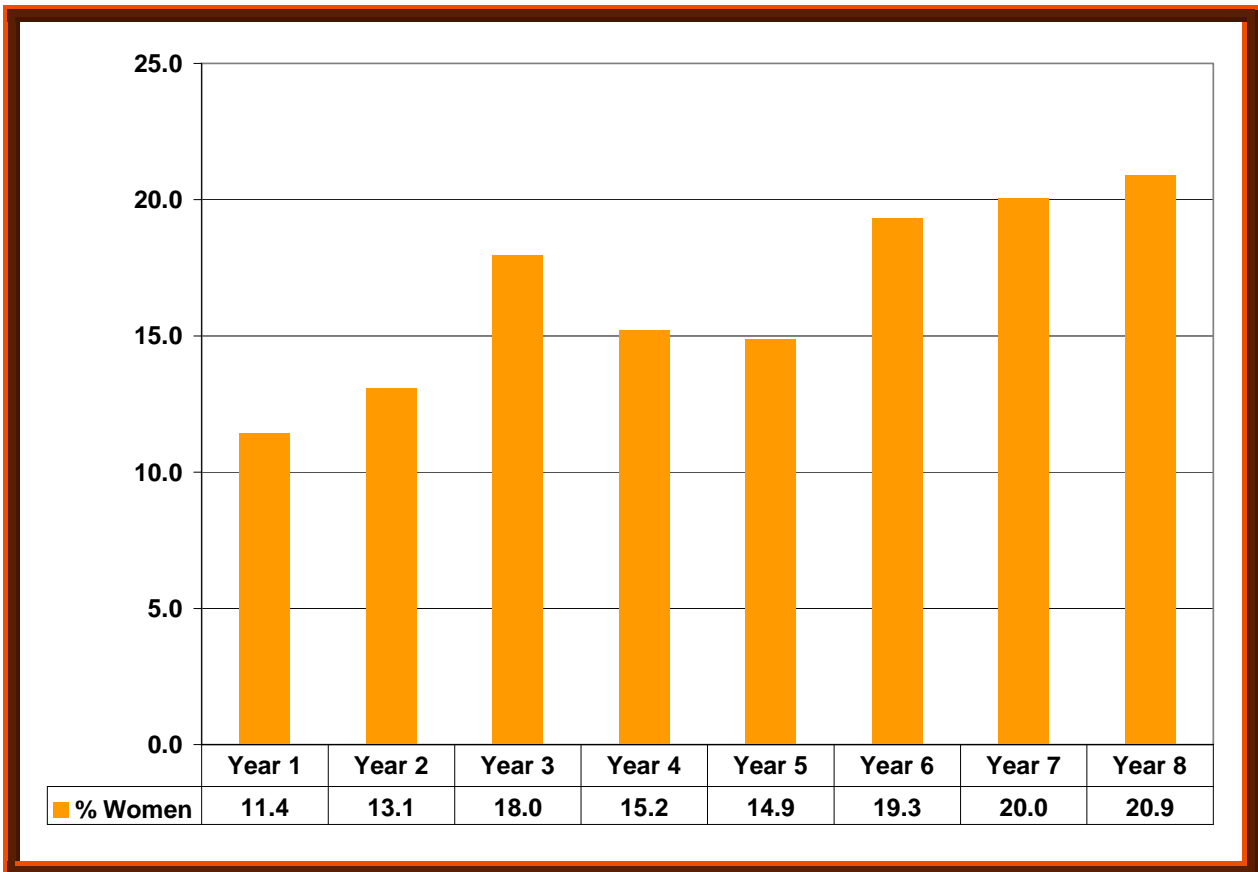
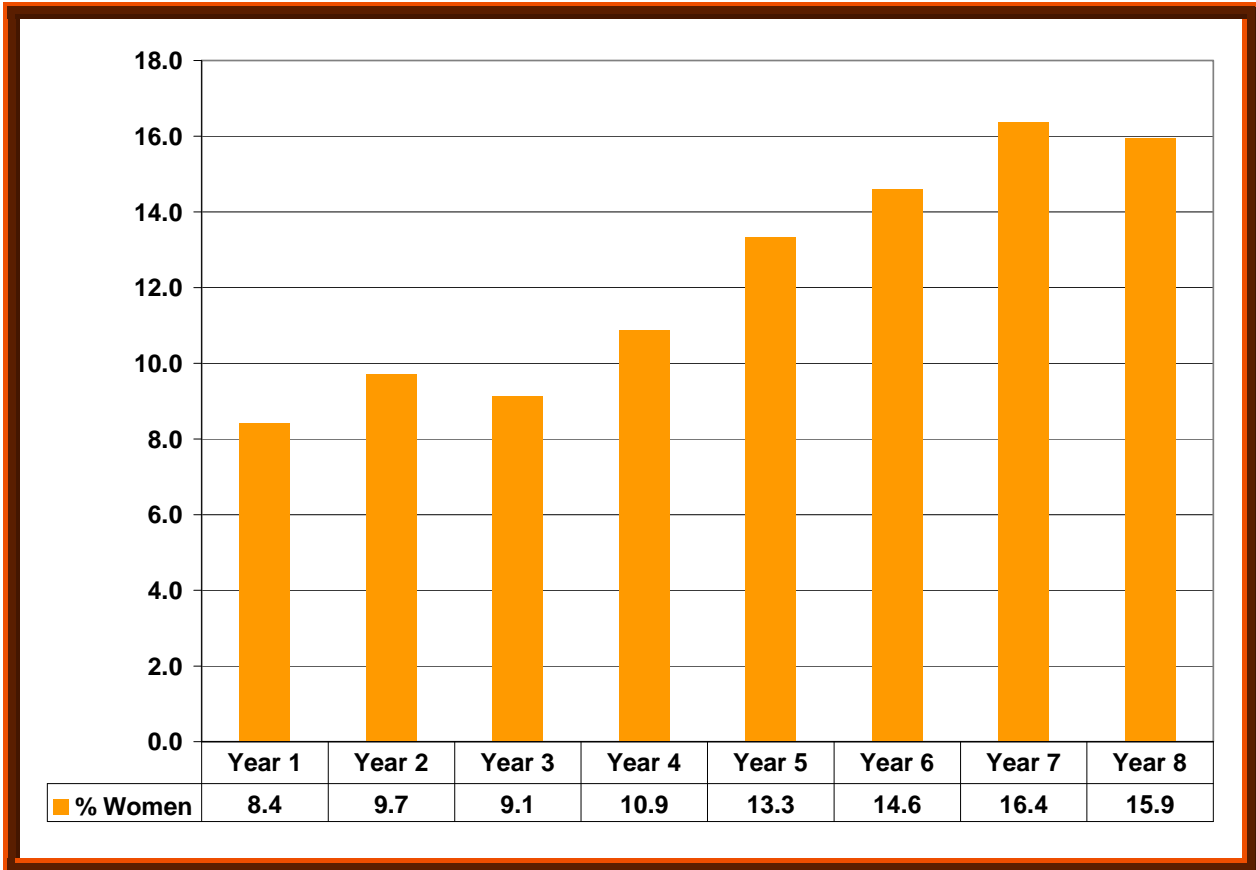


Figure 6-3  
Percentage women employed in the category professionals

## 6.4 TECHNICIANS AND ASSOCIATE PROFESSIONALS

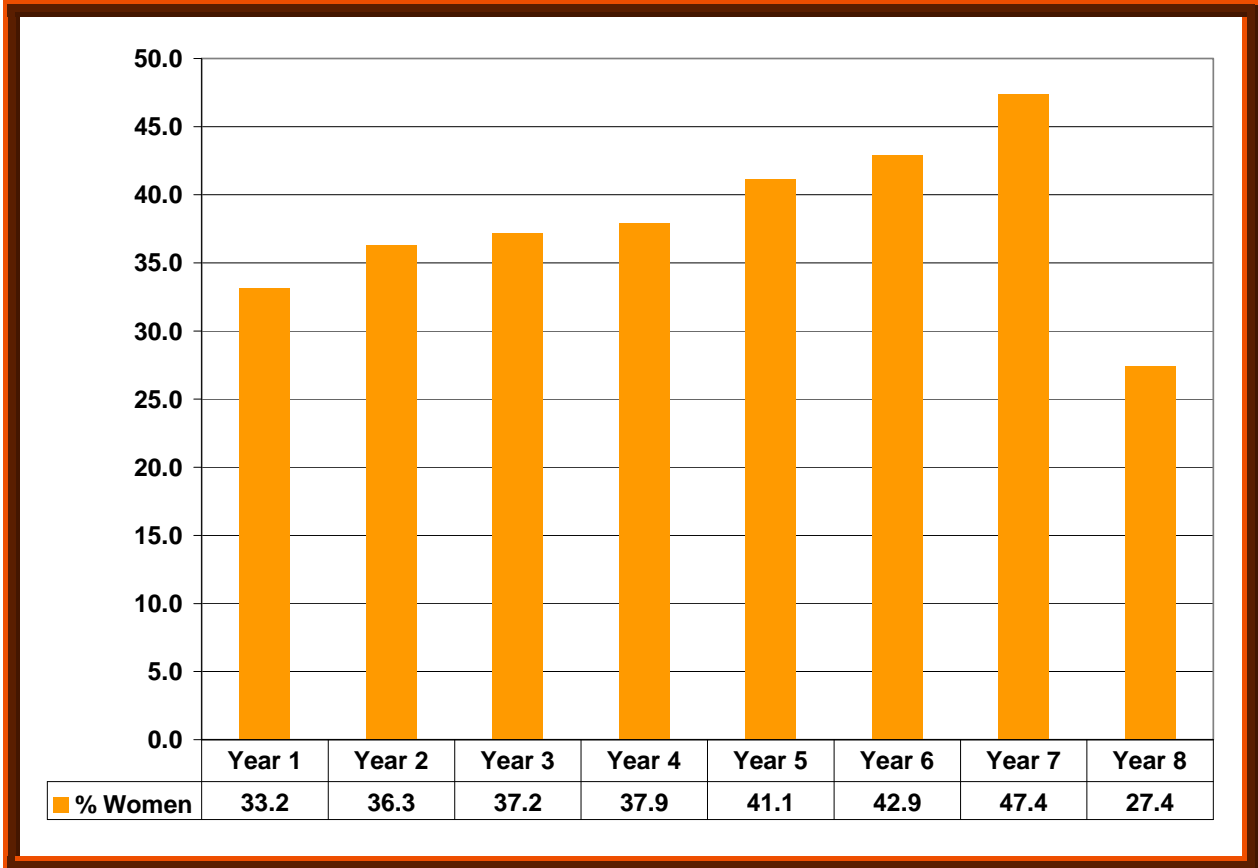
The percentage female technicians and associate professionals is lower than the percentage female professionals, but it also increased from Year 1 to Year 8. In Year 1 8.4% of the workers in this category were women and by Year 8 women formed 15.9% of the people employed in this category.



**Figure 6-4**  
**Percentage women employed in the category technicians and associate professionals**

## 6.5 CLERICAL AND ADMINISTRATIVE WORKERS

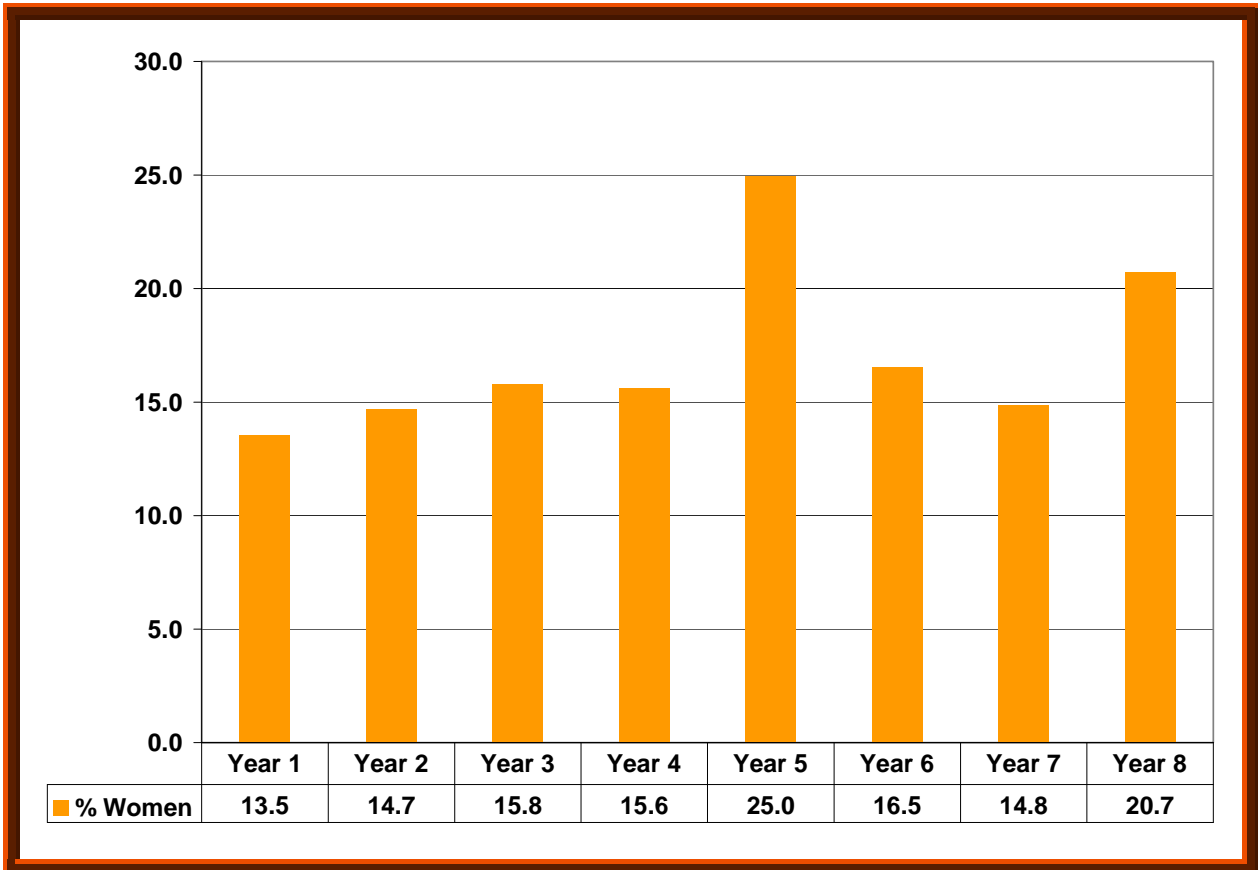
A relatively large component of the clerical and administrative workers is women. In Year 1 33.2% of these workers were female. The percentage women in this category increased gradually every year to 47.4% in Year 7. However, in Year 8 it dropped sharply to 27.4%.



**Figure 6-5**  
**Percentage women employed in the category clerical and administrative workers**

## 6.6 SERVICE WORKERS, SHOP AND MARKET SALES WORKERS

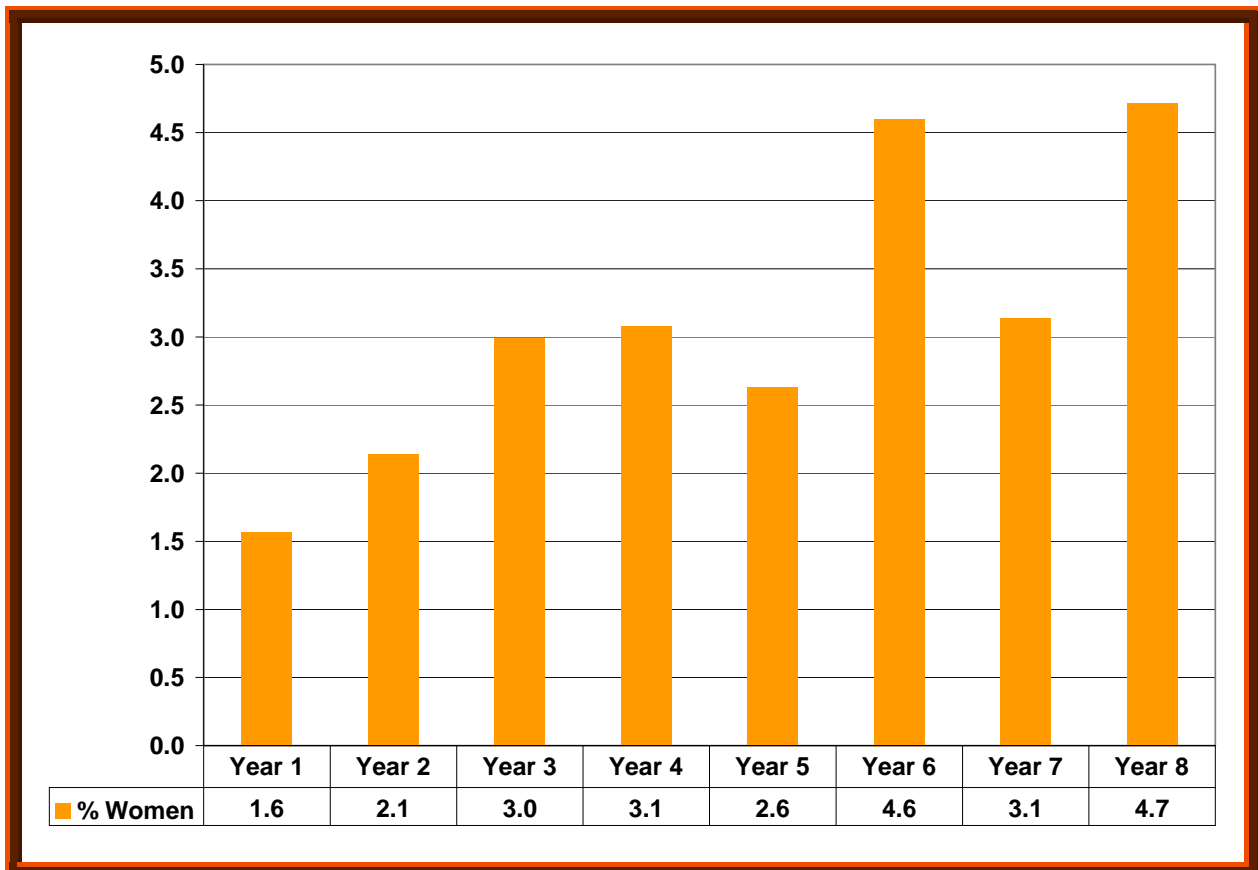
The percentage women in the occupational category service workers, shop and market sales workers varied somewhat over the eight-year period. In Year 1 women formed 13.5% of this category. In Year 5 there was a sudden increase to 25.0% and then in Year 6 it dropped again to 16.5%. In Year 8 women constituted 20.7% of the workers in this category.



**Figure 6-6**  
**Percentage women employed in the category service workers, shop and market sales workers**

## 6.7 CRAFT AND RELATED TRADE WORKERS

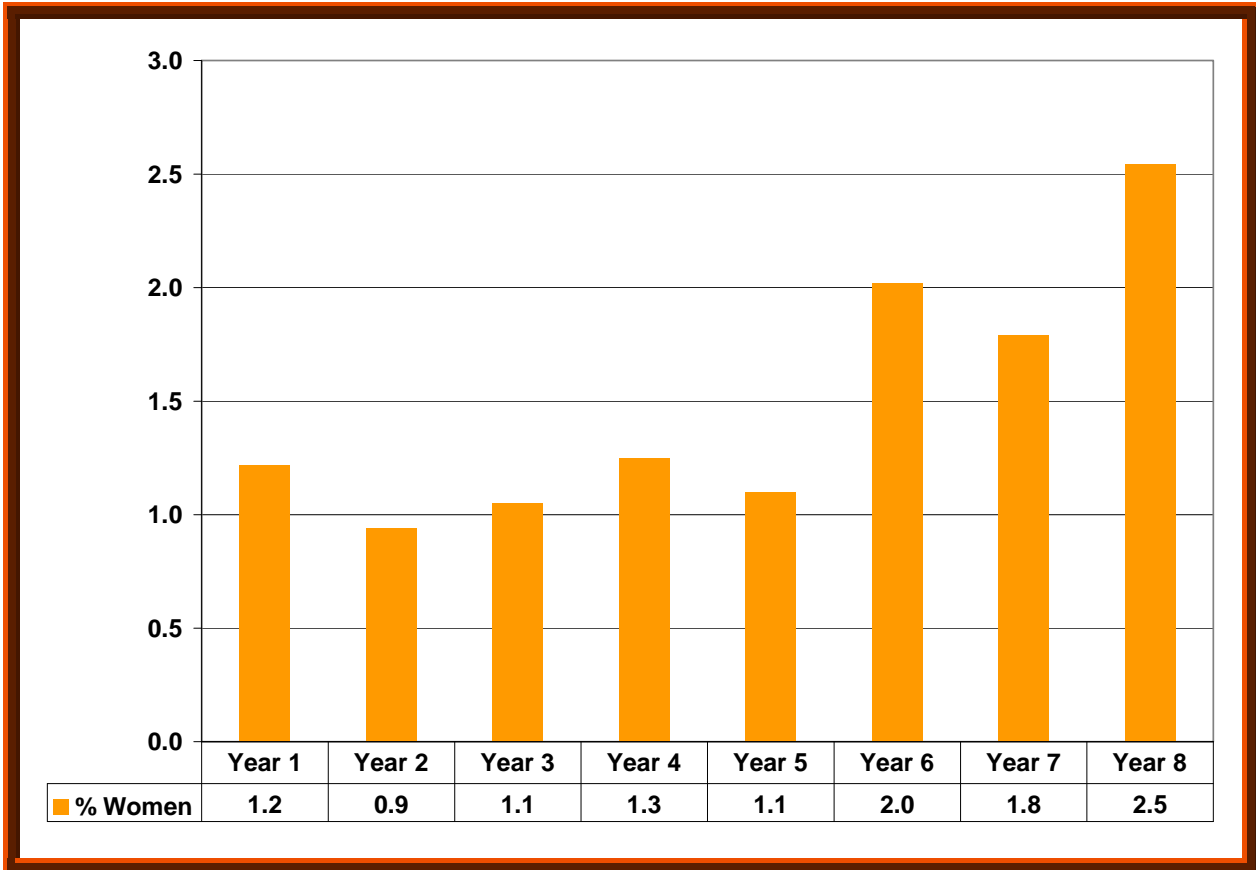
The percentage female craft and related trade workers is relatively small compared to the occupational categories discussed above, but it seems to have increased over the eight-year period. In Year 1 women formed only 1.6% of this category but by Year 8 the percentage women had increased to 4.7%.



**Figure 6-7**  
**Percentage women employed in the category craft and related trade workers**

## 6.8 PLANT AND MACHINE OPERATORS AND ASSEMBLERS

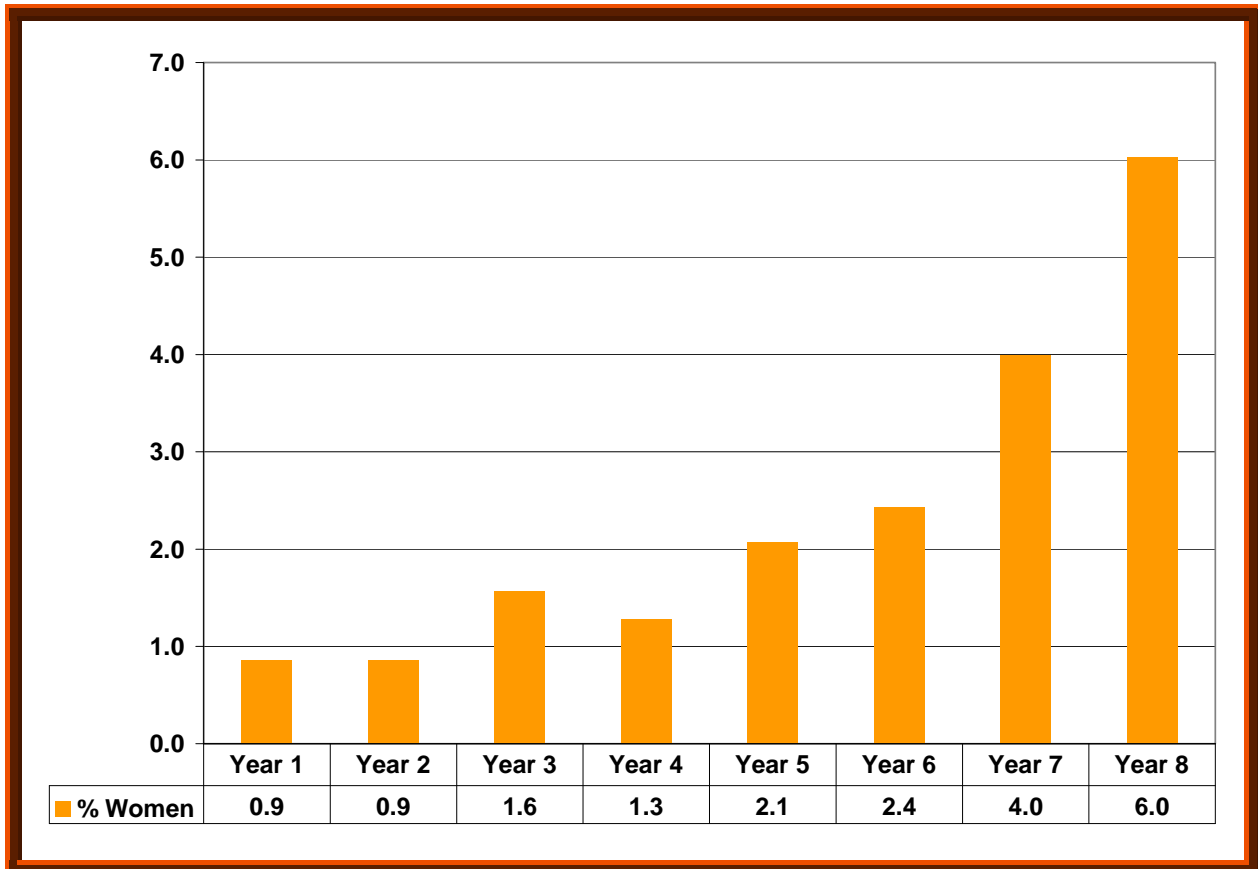
The occupational category plant and machine operators and assemblers is a relatively large category and therefore the change in the gender composition was more significant than the figures may suggest. The percentage women in this category increased from 1.2% in Year 1 to 2.5% in Year 8.



**Figure 6-8**  
Percentage women employed in the category machine operators and assemblers

## 6.9 LABOURERS AND RELATED WORKERS

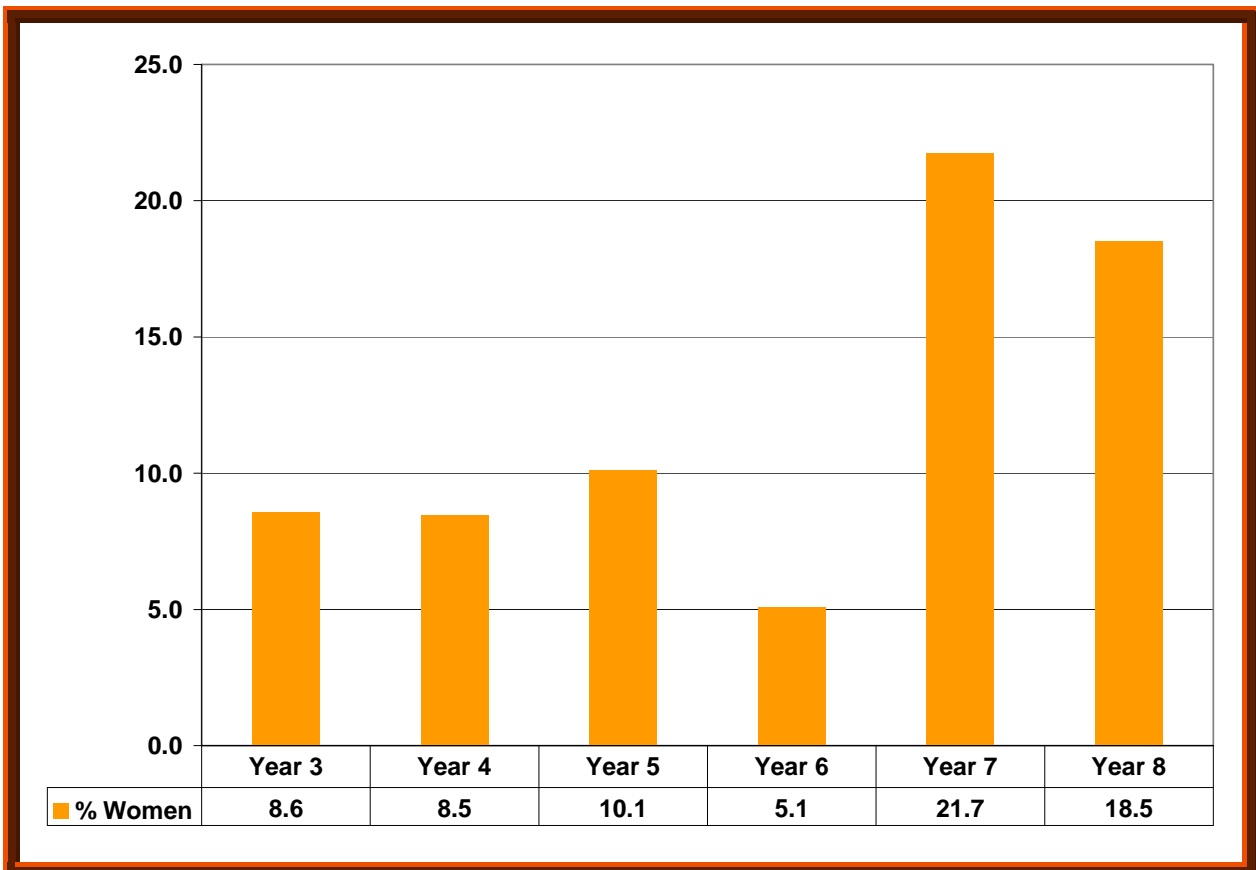
The change in the overall percentage of women employed in the organisations included in the longitudinal study is mainly the result of the fact that there was a large increase in the employment of lower skilled women. In Year 1 only 0.9% of the labourers and related workers were women. This increased gradually to 2.4% in Year 6. Then, in Year 7 employers reported that 4.0% of the workers in this category were women and in Year 8 the percentage women increased to 6.0%.



**Figure 6-9**  
Percentage women employed in the category labourers and related workers

## 6.10 APPRENTICES AND SECTION 18 (1) LEARNERS

In Years 3 to 6 the percentage women employed as apprentices and Section 18(1) learners remained relatively small. In Year 3 only 8.6% were women and this percentage dropped to 5.1% in Year 6. In Year 7 the employers reported that 21.7% of their apprentices and learners were women. In Year 8 this percentage dropped slightly to 18.5%.



**Figure 6-10**  
**Percentage women employed in the category apprentices and section 18(1) learners**

# 7

## EDUCATIONAL PROFILE

Year 4 was the first year in which employers were required to provide information on the educational qualifications of their workers. Employers were allowed to enter estimates if they did not have actual information on the educational qualifications of their employees. In Year 4 they reported that 20.2% had no or very little formal schooling and that 20.3% had an NQF Level 1 qualification (Grade 9 or ABET 4). However, in Year 5 they revised this estimate downward and said that 29.9% of their workers had no or very little schooling and only 4.3% had an NQF Level 1 qualification.

Overall the educational profile of the workers included in the longitudinal study remained more or less the same. The only visible trend is the employment of matriculants which increase gradually from 10.9% in Year 4 to 15.0% in Year 8.

<b>Educational level</b>	<b>Year 4</b> %	<b>Year 5</b> %	<b>Year 6</b> %	<b>Year 7</b> %	<b>Year 8</b> %
No schooling/pre-ABET	20.2	29.9	27.9	27.8	22.8
Grade 3/Std 1/ABET 1	5.0	9.2	7.2	8.6	6.3
Grade 4/Std 2	6.5	5.9	3.5	3.0	4.7
Grade 5/Std 3/ABET 2	4.3	4.2	5.4	5.7	5.2
Grade 6/Std 4	4.3	4.0	4.5	3.7	4.6
Grade 7/Std 5/ABET 3	6.3	6.7	8.4	8.6	8.0
Grade 8/Std 6/Form 1	3.9	4.5	5.4	4.3	6.3
Grade 9/Std 7/Form 2/ABET 4	20.3	4.3	5.2	5.1	7.3
Grade 10/Std 8/Form 3/N1	7.9	7.6	6.5	6.9	7.1
Grade 11/Std 9/Form 4/N2	4.2	4.8	4.8	5.7	6.1
Grade 12/Std 10/Form 5/N3	10.9	12.4	13.5	13.3	15.0
Certificate	4.3	4.1	4.8	4.8	3.4
First Degrees/Diploma	1.2	1.3	1.6	1.3	2.1
Honors Degree/Higher Diploma/4-year Degree	0.5	0.4	1.0	1.0	0.8
Doctoral/Master's Degree	0.1	0.6	0.3	0.3	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# 8

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## CONCLUSIONS

The main aim of the longitudinal study was to track trends in employment in the group of organisations that had submitted WSPs to the MQA in all the years since the inception of the mandatory grant system.

The first task in this research process was to select the organisations that submitted grant applications throughout the eight-year period. This task proved to be quite difficult because some of the very large mining groups changed the configuration of companies for which they submitted grant applications. Nevertheless a total group of 26 organisations or mining groups were included in the longitudinal analysis.

The initial intention was to exclude the variations seen in the analysis of all the grant applications, which were brought about by the fact that it was not always the same group of organisations that submitted grant applications. However, it was found that it was not possible to exclude all such variations. Some of the large mining groups restructured in the eight-year period through mergers, acquisitions and the selling of certain operations. Variations also occurred because of the initial uncertainty regarding the position of contractors – in the first years some employers included them in their WSPs and in later years they excluded them.

In some of the variables that were analysed no clear trends could be discerned. For example:

- Total employment varied and did not show a clear trend of growth or decline;
- The geographical spread of workers shifted from year to year without a discernable pattern;
- The occupational distribution remained more or less the same except for an increase in the employment of plant and machine operators and assemblers relative to labourers and related workers;
- The educational profile of the workforce remained more or less unchanged except for a slight increase in the employment of people with matric.

Clear trends were found in the population group and gender composition of the workforce:

Although the overall racial composition of the workforce remained more or less the same, the employment of historically disadvantaged people in higher skilled positions increased systematically over the eight-year period and the employment of women increased systematically in most of the occupational categories – notably in the largest category of labourers and related workers which used to be almost exclusively male domain. The main changes are summarised in Table 8-1 below.

**Table 8-1**  
**Summary of main changes in worker profile**

Occupational category	Percentage Black workers	
	Year 1	Year 8
Legislators, Senior Officials, Managers and Owner Managers	5.2	24.8
Professionals	14.4	31.3
Technicians and Associate Professionals	27.3	45.9
	Percentage women	
	Year 1	Year 8
Legislators, Senior Officials, Managers and Owner Managers	4.4	12.1
Professionals	11.4	20.9
Technicians and Associate Professionals	8.4	15.9
Service Workers, Shop and Market Sales Workers	13.5	20.7
Craft and Related Trade Workers	1.6	4.7
Plant and Machine Operators and Assemblers	1.2	2.5
Labourers and Related Workers	0.9	6.0
	Year 3	Year 8
Apprentices and Section 18 (1) Learners	8.6	18.5