HUMAN RESOURCES IN THE CAPE MIDLANDS

Thesis
Submitted in Partial Fulfilment of the
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by

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Dedicated to the Memory
of my Father

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ERRATA

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Page 53	Table 16	Substitute "20-64" for "20-24"
Page 53	line 12	Substitute "15-64 years" for "15-60 years"
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Page 66	line 18	Substitute "United Nations Secretariat Method" for "United Secretariat Method"
Page 70	line 44	Substitute "while" for "which"
Page 72	line 32	Delete "say"
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Page 83	Table 33	Substitute " $^{o}/_{oo}$" for "%"
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PREFACE

Although Alfred Marshall's definition of economics has been criticised for its allegedly narrow conception of the subject, it is sometimes overlooked that he considered the study of wealth but one side of the matter. To Marshall, the other and "more important" side of economics was that it also forms "a part of the study of man".

The basic thought which underlies the present study is a similar one, namely, that economics is not only concerned with goods and service, but also with men and human action. It is spatially confined to an analysis of the human resources in a region consisting of 21 magisterial districts in the Eastern Cape Province, which cover an area of 72,462 square kilometres, collectively described here as the Cape Midlands. The region is divided into three constituent subregions, which are distinguished partly on administrative and partly on functional grounds, as follows:

Subregion I (Sundays River Catchment)

Aberdeen
Graaff-Reinet
Jansenville
Murraysburg
Steytlerville

Subregion II (Upper Fish River Catchment)

Cradock
Maraisburg
Middelburg
Noupoort
Pearston
Somerset East
Steynsburg
Tarka

Subregion III (Lower Fish River)

Adelaide
Albany
Alexandria
Bathurst
Bedford
Fort Beaufort
Stockenström
Victoria East

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1. A. Marshall: Principles of Economics, p. 1.
2. For a detailed description of the research area, see: J. J. Badenhorst: A Geographical Study of the Cape Midlands and Eastern Karroo Area, with reference to the Physiography and Elements of Land Use.

The economic performance of the Cape Midlands has not been a favourable one within the overall South African context, as shown by the persistent net out-migration of its White, Coloured and Bantu population of working ages. This process may be interpreted as the expression of personal discontent with local conditions and a preference for those prevailing elsewhere.

The general problem of regional economic divergencies has in recent years given rise to a growing body of research and literature, to which the present study is intended to make a modest contribution.

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Chapter I gives a broad outline of the research area's population history, while the subsequent chapters deal with its more recent demographic data and properties. Thus Chapter II sets out the sex-age composition of the regional population, while Chapter III analyses its mortality and fertility, from which it is possible to draw some indirect inferences about the regional population loss through residual migration. The main economic properties of the Cape Midlands population are discussed in Chapter IV, which also throws some light on the interaction of demographic and economic forces within the region. Chapter V is confined to the first results of the Population Census of 1970, which suggests that the process of regional net out-migration has gained momentum in recent years. Some fundamental theories of migration are briefly examined in Chapter VI, thus serving as a general background to the findings of a sample survey of the urban White population, with special reference to its migratory characteristics, set out in Chapter VII. Finally, Chapter VIII considers some of the probable future demographic-economic prospects which appear to confront the Cape Midlands region. With the exception of Chapter V, which itself is synoptic in nature, each chapter is concluded by a brief summary of its main contents.

* * * * * *

The writer owes an immense debt of gratitude to a large number of persons and organisations, only a few of whom can be explicitly mentioned here. Firstly, I would like to express my profound thanks to Professor D. Hobart Houghton, of Rhodes University, Grahamstown, whose unfailing interest, encouragement and assistance were largely instrumental in carrying this study to its conclusion. I have had the privilege of greatly benefiting from the expertise of Professor J. L. Sadie, of the University of Stellenbosch, who was also responsible for engendering my interest in economic demography, while a student in his Department. In designing and executing the sample survey, on which Chapter VII is based, the writer received much practical advice from Professor H. L. Watts, of the University of Natal, Durban, whose previous research experience in the Eastern Cape Province proved to be of great value for the present study too. Several pitfalls were avoided and much information gained by the kind and patient co-operation of both public bodies and private individuals within the research area itself.

I am also most grateful to Mesdames L. C. Vroom, I. Inggs and D. Narraway, who typed the thesis, and Mr S. T. Fullarton who was responsible for its lithographic processing.

In conclusion, I would like to gratefully acknowledge the financial support

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3. No separate analysis is undertaken of the Asian population group, which formed only 0.1 per cent of the region's total population in 1970.
4. K. E. Boulding: Economics as a Science, p. 82.

from the Human Sciences Research Council and the Cape Midlands and Karroo Regional Survey, without which this study would not have been possible.

Needless to add, the responsibility for the shortcomings of what follows rests with the writer alone.

M. L. Truu
Johannesburg
September 1971

CHAPTER I

HISTORICAL POPULATION GROWTH

This chapter gives an overview of historical population growth in the Cape Midlands region. Seeing that a survey of this nature relies heavily on the availability of suitable statistical material, the chapter falls into the following three chronological sections:

I The period prior to 1865. (pp. 3-11). No census data in the proper meaning of the term are available for this period, and the developments outlined refer mainly to the Eastern Cape Province in general, rather than the Cape Midlands in particular.

II The period 1865-1904. (pp. 11-16). Four census enumerations were undertaken in the Cape Colony during this period, by means of which it is possible to gain some insight into the general population situation in the contemporary Midlands region.

III The period 1904-1960. (pp. 16-35). During this period the availability of more detailed, accurate and comparable statistics makes it possible to analyse the regional population not only by its ethnic components, but also according to its rural-urban distribution against the wider national background.

The first section of the present chapter therefore consists of a broad historical outline of the main factors which influenced the general demography of the Eastern Cape Province at the time, whereas the following two sections are not only more confined in their spatial coverage, but also become progressively more quantitative and analytical in their contents.

There exists no record of the number of people who lived in South Africa before the establishment of the Dutch East India Company's settlement at the Cape in 1652. The aboriginal inhabitants of the Cape Province were Hottentots and Bushmen, neither of whom any longer forms an identifiable part of the local population structure from a practical point of view.

Population enumerations prior to the first census of the Cape Colony in 1865 were frequent, but tend to be of a fragmentary and unreliable nature. These series were discontinued after 1856 because of the manifest inaccuracy of the data and the expense of collecting them. One contemporary writer describes the pre-censal returns as "shamefully defective" and attributes this to the fact that they were compiled primarily for taxation purposes.[1]

Although the quality of the data from the three Cape censuses held during the second half of the 19th century is superior to that yielded by previous enumerations, all population statistics prior to the 20th century should be approached with a good deal of circumspection. The following three defects seem to be common to most of the data recorded before the 1904 census:

(i) There appears to have been a persistent under-enumeration of the non-White population, whose numbers should really be taken as indeterminate for analytical purposes. It was indeed customary for the Cape authorities to point out that "from their wandering and unsettled mode of life the coloured population of both the Western and Eastern Divisions cannot be ascertained with any accuracy".[2] This problem was aggravated by the uncertain and shifting borders of the Colony.

(ii) Statistical comparability is further impaired by the more or less random inclusion and exclusion of certain population groups at different times. In some enumerations groups like officials and public servants, soldiers, migrants and aliens have been listed separately; in others they have been specifically omitted, and then again at times merged with the main body of the population. Before and during the 19th century such persons were often sufficiently numerous to have a significant effect on total population figures.

(iii) Whatever population statistics may be available before the 20th century, it is not feasible to analyse them in terms of the fourfold ethnic classification commonly used in South Africa today, namely, that of Whites, Coloureds, Asiatics and Bantu. Very often it is impossible to impute persons described as "slaves", "free blacks", "Christians", "coloured", "mixed", etc. to any one of the above categories with a reasonable degree of confidence. Some enumerations moreover fail to distinguish between White and non-White persons. It also appears that in some cases the same people were classified under different ethnic groupings during successive enumerations; a problem occasionally present to a certain extent in modern censuses too. On the whole it may be assumed that the figures for the White and slave populations are the most reliable of all the available data, because of the political and economic significance of these groups.

I The Period Prior to 1865

Much of the early population history of the Eastern Province coincides with that of the Cape Midlands region. The two began to diverge with the development of the seaports of Port Elizabeth and East London, as well as the incorporation of territory beyond the area of initial White settlement.

It is historically quite feasible to draw a distinction between the Western and Eastern parts of the Cape Colony, both on administrative and functional grounds. Although the long advocated political secession of the Eastern Province failed to materialise, the region did come to be treated as a separate administrative unit, nominally in 1826 and effectively in 1836, with the appointment of a Lieutenant-Governor who had his seat in Grahamstown.

Apart from the 600 miles which separated Grahamstown and Cape Town, there were several fundamental distinctions between the Western and Eastern parts of the Colony, based on climate, natural resources and agricultural production. Also, while the population of the West was relatively settled, that of the East tended to be rather more mobile. And the frontier problems between Whites and Bantu in the East had, practically speaking, no parallel in the West.

The present ethnic composition of the Cape Midlands may be considered to have its origin in two migratory movements which converged on that region during the course of the 18th century: the Bantu down the East coast and the Dutch colonists from the West. Surviving Hottentot and Bushman elements became in the course of history to a greater or lesser extent intermingled with other race groups, and their descendants today form the local Coloured population.

The White eastward migration was initially a slow process and the numbers involved comparatively small. Apart from incidental explorers, hunters, traders and shipwrecked persons, the White and Bantu migrants first met each other between the Gamtoos and Fish rivers in the 1770's.[3]

It was not the policy of the Dutch East India Company, which had already passed its peak by the middle of the 17th century, to actively encourage either a large White population at the Cape itself, or to acquire new territory further afield. The Company's aim was to promote the East India trade and not to colonise Southern Africa. It has been estimated that the total White population of the Cape was somewhat less than 2,000 persons by the beginning of the 18th century, when the Hottentots Holland mountains formed the eastern boundary of the Colony which consisted of two administrative districts: the Cape itself and Stellenbosch.[4]

The expansion of the Colony during the 18th century was set off by the Company's interest in stock farming. While the original settlement could supply sufficient agricultural crops, stock trading with the Hottentots often proved to be a costly and unreliable business. Colonists were therefore encouraged to take up pastoral farming as well, in order to provide the Company with a cheap and plentiful source of fresh meat. For this purpose they now moved to the North and East of the established settlement in search of suitable land.

This process of dispersion remained a limited one until 1717, after which it gathered considerable momentum.[5] It was accelerated for various reasons: Over-production of vegetables, cereals and wine induced an increasing number of colonists to switch from arable to pastoral farming. There was also dissatisfaction with the Company's decision to discontinue the granting of freehold farms in favour of "loan farms".[6] Moreover, those who moved further inland at first encountered no serious opposition from the sparse indigenous population. Hottentot numbers had been greatly reduced by a smallpox epidemic in 1713 and while the predatory Bushmen did prove an obstacle, they could offer no really sustained or organised resistance. The Dutch authorities themselves remained largely indifferent to the fate of the migrants; at any rate, they made no deliberate effort to restrain the movement.

The following number of persons were reported to be living in the expanding Colony at the dates listed below:

	Burghers and their families	Company staff and Garrison	Non-Whites
1705	1,669	542	1,123
1744	4,060	1,089	5,127
1765	7,141	1,489	7,929

After having founded the new district of Swellendam in 1745 and successfully negotiated the geographical hindrances they encountered, the eastward migrants were eventually checked by contact with large numbers of Bantu on the Great Fish River, which came to be regarded as the eastern boundary of

the Colony in 1778. By then the erstwhile roving White population had already to a large extent become permanently established stock farmers. In 1786 the magistracy of Graaff-Reinet was officially formed with jurisdiction over an area of some 104, 000 square kilometres, which included the greater part of the present Cape Midlands region. From that date "the Eastern Province may be considered to have its official existence".[7]

By 1795 the White population of the Colony as a whole numbered some 15, 000 persons, and its natural increase was reported to be "very rapid".[8] The White population of the Graaff-Reinet district in the same year was given as 3, 079 persons. There was a very significant regional difference in the numerical relationship between Whites and slaves: in the West slaves exceeded the number of Whites by 37 per cent, but amounted to only 19 per cent of the White population in the East. These figures are in some measure indicative of the serious and prolonged labour shortage experienced by the frontier farmers, whose main supply of labour came from the Hottentots, although in some cases Bushmen and Bantu were also reported to be working on White farms.

Economically the Eastern and Western regions of the Colony were highly complementary, the East exchanging its livestock for manufactured goods, including gunpowder, from the West.[9] The Company's influence in the Eastern Province, however, remained extremely limited and the colonists there were very much left to fend for themselves. Farming conditions were periodically rendered onerous especially by droughts and locusts, the lives and property of the settlers were exposed to Bushman attacks, and the year 1779 marked the beginning of a century of wars with the Bantu. Discontent with the authorities at the Cape, "which neither defended them nor permitted them to defend themselves",[10] reached breaking point in 1795 when the frontiersmen of Graaff-Reinet declared themselves independant of the rest of the Colony.

In the same year the Cape was occupied by Britain and in 1797 Graaff-Reinet reluctantly submitted to British rule. Relations with the new authorities at the Cape remained uneasy throughout the occupation.

Another source of ire was created for the farmers by the arrival in Graaff-Reinet of Dr Van der Kemp of the London Missionary Society in 1801, who shortly afterwards founded a settlement for Hottentots at Bethelsdorp. This was one of several mission stations throughout the Colony, which the farmers found particularly irksome seeing that these establishments acted to drain off their already scarce supply of labour.

In 1779 the military outpost Fort Frederick was built at Algoa Bay, the site of the present city of Port Elizabeth. Yet the Bantu depredations in the Zuurveld - between the Fish and Sunday's rivers - remained the most serious problem of the Eastern Province when the Cape was handed over to the Batavian Republic in 1803, the Dutch East India Company having come to an end in 1798.

The two leading representatives of the Batavian Regime, Governor Janssens and Commissioner-General de Mist, both visited the Eastern Province in 1803. They failed to persuade the Bantu to withdraw from the Zuurveld, but wrought some significant administrative reforms. To improve control in the frontier regions, two new magistracies were formed: Tulbagh from Stellenbosch and Uitenhage from the southern part of the Graaff-Reinet district, as well as a small portion of Swellendam.

When Britain retook the Cape in 1806 the official population returns for the two eastern districts were 6, 951 Whites, 7, 398 Hottentots and 1, 905 slaves, representing 26, 36, and 6 per cent of their respective totals for the Colony as a whole. The first British Governor, The Earl of Caledon, sent Colonel Collins to the Eastern Province to report on the situation there. He returned with two major recommendations, namely, that the Bantu be expelled from the Zuurveld beyond the Great Fish River, and that the frontier be strengthened by more White settlers. The first objective was accomplished under the governorship of Sir John Cradock in 1811-12, when Colonel Graham cleared the Zuurveld of some 20, 000 Bantu with a force of troops and burghers. Military posts were also established at Cradock and Grahamstown.

The Governor, however, failed to persuade Dutch-speaking colonists to settle in the Zuurveld; the White population of the Colony as a whole was in any case too small in absolute numbers to provide the frontier districts with enough settlers.

In 1819 the 5th Kaffir War broke out and this time the Bantu were driven back across the Keiskamma River, some 30 miles east of the Fish. Although the Fish River remained the official eastern boundary of the Colony, the area between the two rivers was now declared a neutral zone (the Ceded Territory) which neither Whites nor Bantu were to enter, a regulation which proved incapable of effective implementation. Fort Willshire was built on the western bank of the Keiskamma.

An event of major demographic, economic and political significance in the Eastern Province was the arrival of some 5, 000, mostly government-sponsored, British immigrants at Algoa Bay in 1820-21, previous immigration to the Colony having been mostly confined to the West. The Zuurveld had been renamed as the district of Albany in 1814 and in 1820 a temporary magistrate was placed at Bathurst.

The initial party of British settlers consisted of 2, 415 male and 1, 585 female persons; 2, 250 of whom where adults and 1, 750 children. While the scheme was specifically aimed at the establishment of an agricultural community, rather less than half of the adult male settlers had been previously occupied in agricultural pursuits, most of the remainder being artisans, mechanics and traders.[11] After years of struggle under adverse farming conditions and unfavourable official policy, many of the settlers were destitute and began to migrate to the adjacent towns or became traders with the Bantu across the frontier. The tide turned in 1825-26, when the Albany farmers were, in particular, allowed to increase the size of their land holdings.

Stock farming in the Eastern Province had hitherto been almost exclusively limited to meat production, but in 1827 commercial wool farming was embarked upon in Albany and rapidly developed into a thriving export industry, which benefited the near-by seaports Port Elizabeth and Port Frances (today Port Alfred). The latter, however, eventually lapsed into disuse on account of silting caused by a sand-bar across the mouth of the Kowie River. Similarly, the development of the town of Bathurst was effectively checked when Grahamstown was decreed the seat of the magistracy in the Albany district. As a result of the White population drift, three new districts were established within the Eastern Division of the Colony: Somerset East in 1825, Cradock and Colesburg in 1837. The mother district of Graaff-Reinet had by then been reduced to about one-fifth of its original area.

The greatest economic problem in the East remained insufficient farm labour.[12] The British settlers were not allowed to own slaves, and the labour shortage was intensified by the consequences of legislation passed in 1828 and

1834. In 1828 the 50th Ordinance abolished the Hottentot pass-laws and 1834 saw the emancipation of the Colony's 39,000 slaves, less than 5,000 of whom were in the Eastern Province. In both cases many workers left their previous employers, and large-scale vagrancy and plundering followed.[13] In order to combat vagrancy and also to create a buffer against the Bantu, Hottentots were in 1829 given land in the Kat River Settlement near Balfour. In 1833 this settlement was reported to have a population of 2,185 Hottentots as well as 731 Bantu.[14]

In spite of various setbacks, the Eastern Province on the whole experienced considerable economic prosperity until the outbreak of the 6th Kaffir War in 1834, when the Bantu invaded the districts of Albany and Somerset East, and penetrated the Colony almost as far as the town of Uitenhage. It has been pointed out that these frontier wars were not merely a matter of stock thefts and consequent reprisals. At the root of the conflict lay the struggle for land and water - the essential requisites for stock farming, which was practised by both Whites and Bantu.[15]

After Colonel Harry Smith had defeated the Bantu invaders, he proclaimed the area between the Keiskamma and Kei rivers as Queen Adelaide's Province, established his headquarters at King William's Town and had a number of forts built in the new province. It was the proposed policy of the then Governor, Sir Benjamin D'Urban, to settle Whites around these forts, and to hand out most of the Ceded Territory to White farmers as well. The war had also freed some 17,000 Fingos from Xhosa rule, who to some extent came to meet the existing shortage of labour in parts of the Eastern Province.[16]

Although some Whites did settle at Fort Beaufort in the Ceded Territory, these territorial plans met with some fierce opposition in Britain, especially from the London Missionary Society and Andries Stockenström, about to be appointed the Lieutenant-Governor of the Eastern Province. In 1936 D'Urban was instructed by the British Colonial Secretary, Lord Glenelg, that his scheme be abandoned, the forts in Queen Adelaide's Province dismantled and the Bantu be allowed to occupy the Ceded Territory as well. The future relationships between the Bantu and the Colony were to be governed by an elaborate treaty system. These were regarded as retrograde steps by Dutch- and English-speaking frontiersmen alike, as was the appointment of the person of Stockenström to the office of Lieutenant-Governor.[17]

The following year, 1837, has been described as "the great year of the Trek", when thousands of Dutch-descended settlers left the eastern frontier and crossed the Orange River.[18] This does not mean that the Glenelg-Stockenström system was the sole cause of the Great Trek; in fact it has been suggested that the 6th Kaffir War merely delayed the Trek.[19]

Generally put, there appears to have been an overwhelming desire on the part of the Trekkers to be free of British rule with its lack of representative government and adequate protection, yet with what was considered to be too liberal a policy toward the non-White races. According to the Manifesto of Piet Retief, the Trekkers were motivated by the following four reasons to leave the Colony: Widespread and unchecked vagrancy; financial losses sustained through the terms on which the emancipation of slaves was carried out; successive incursions and depradations by the Bantu and other non-White people, and the uncritical credence given in England to reports by missionaries and other persons ill-disposed towards the White settlers.[20] There was also an underlying cause of economic nature, namely, land shortage brought about by population growth, extensive stock farming, droughts and wasteful land use.[21]

The Great Trek was, however, decidedly more than an acceleration of the

long and steady drift of white farmers beyond the official borders of the Cape Colony. "The Great Trek was a mass movement. It was the emigration of a particular group of inhabitants of the Cape Colony: Afrikaans-speaking eastern and north-eastern frontier farmers. But it was even more than a large-scale emigration: in its essence the Great Trek was a rebellion against British authority, and insurrection which took on this particular form".[22]

Although the English-speaking settlers remained in the Eastern Province, they sympathised with the Trekkers, shared many of their grievances and stated that unless these were redressed "they would be forced to abandon the colony, and follow the fortunes of their Dutch fellow colonists".[23]

There is no authoritative record of the total number of persons who left the Cape Colony as part of the Great Trek; the exact duration of the Trek itself is not a clear-cut matter. The movement culminated during 1836-38 when an estimated number of 8,000 Whites left the frontier districts,[24] but its complete duration has been considered to extend over the years 1835-48, thus involving a total exodus of some 14,000 White persons.[25] Virtually all the Trekkers came from the Eastern Province and the extent of the population drain appears to have been about equal to the entire White natural increase of the Cape Colony during this period.[26]

At the beginning of the 1840's wool farming prospered and Grahamstown had developed into a thriving market centre, but there was a general neglect of the Eastern Province by the authorities.[27] Labour remained scarce and immigration had contracted to the 18th century level. Some overseas immigrants did, however, continue to settle in the Eastern Province, their numbers being to a certain extent augmented by overland arrivals from the western part of the Colony.[28]

On the political front, the Glenelg-Stockenström system steadily crumbled away and in 1844 the Governor, Sir Peregrine Maitland, cancelled all previous treaties with the Bantu and established a military settlement, Post Victoria, in the Ceded Territory. After the 7th Kaffir War in 1846-47, Sir Harry Smith resuscitated the abortive frontier scheme which he himself, as Sir Benjamin D'Urban's military chief-of-staff, had previously been instrumental in formulating.

The Ceded Territory was formally annexed to the Cape Colony as the district of Victoria, and the former province of Queen Adelaide constituted into the separate colony of British Kaffraria with King William's Town as its capital. In 1848 the port of East London was founded at the mouth of the Buffalo River. Over 2,000 troops were stationed in British Kaffraria and farms were allotted to White settlers around the forts and mission stations. There remained, however, a basic dilemma: Insofar as the frontier wars were caused by a shortage of land, every post-war settlement which drove the pastoral Bantu further East contained within itself the germ of a new conflict.

The colonial frontiers were also extended to the north-east by the incorporation of the district of Albert, previously known as the Kraai River Field Cornetcy. These developments were thus largely concerned with areas which fall beyond the present Cape Midlands region.

A novel feature of the 8th Kaffir War, 1850-53, was that the Hottentots of the Kat River Settlement joined forces with the Bantu, and were followed in this by the non-White inhabitants of several other parts of the Eastern Province, with the exception of the Fingos. After the conclusion of the hostilities the rebel settlements were largely broken up and the land redistributed to White farmers. The Bantu were expelled from the Amatola mountains, and the district of

Queenstown was founded in 1853. The broad post-war policy of the new Governor, Sir George Cathcart, was to effect a geographical dispersion of the Bantu designed to render them less dangerous to the future security of the Colony.[29]

The geo-political constellation which had emerged in South Africa by the 1850's to a large extent foreshadowed the present-day situation. The two Trekker Republics in the Transvaal and Orange Free State were officially recognised in 1852 and 1854, respectively, while Natal - annexed by Britain in 1843 - achieved Crown Colony status in 1856. The Cape Colony itself received representative government in 1854. British Kaffraria became a Crown Colony in 1860 and was eventually incorporated into the Cape in 1866; the thus enlarged Colony was granted responsible government in 1872. The annexation of several territories, traditionally inhabited by non-White races, was to follow before the close of the 19th century.

Most of the significant developments in South Africa's political and economic history after the middle of the 19th century were to take place away from the Eastern Province, with the Cape Midlands receding more and more into the background. The last of the Kaffir Wars was fought in 1877-78, but this time the main scene of hostilities was the Transkei, well to the east of the Midlands region.

The Eastern Province continued to enjoy peace largely because of a self-inflicted disaster by the Xhosa which occurred in 1856-57. Urged on by prophets and witchdoctors, the Xhosa slaughtered their cattle and destroyed their crops, as this was believed to endow them with much greater ultimate wealth, and also to bring about the miraculous expulsion of the White man. There is no reliable estimate of the number of Bantu who perished during the ensuing famine in the Transkei; in the Ciskei (British Kaffraria) they were reduced by death and dispersion from about 105,000 to 37,000 persons. Apparently this episode was engineered by the Basuto Chief, Moshesh, to serve his own political ends.[30] After the cattle-killing the Bantu on the frontier ceased to be a real threat to the Colony, on which they now depended for famine relief, and became instead a potential source of labour.[31]

Immigration from Europe, both independent and state-aided, increased significantly between 1846 and 1862. Yet compared to North America and Australasia only a trickle of European immigrants settled in the Cape Colony, the average number of new arrivals between 1820 and 1860 being estimated at not more than 750 persons per year, including those who settled in British Kaffraria.[32] The Colony's relative lack of attraction for prospective European settlers may be attributed to various physical and economic factors as well as its ethnic composition; its White population growth had to date depended to an overwhelming extent on its own prolific natural increase.[33]

At this juncture a brief recapitulation seems appropriate for two main reasons: On the one hand, South Africa stood on the threshold of mineral discoveries destined to create an economic revolution with all its varied consequences. On the other hand, the availability of census statistics from 1865 onward not only makes it possible to work with a more accurate collection of population data, but also allows one to concentrate more specifically on developments in the Cape Midlands region, rather than the Eastern Province in its entirety.

About the middle of the 19th century the two chief forms of economic activity in the Eastern Province were pastoral farming and commerce, with Grahamstown and Port Elizabeth as the two leading urban centres. The former was an active market town, where the established population traded with the military, the

Trekkers and the Bantu. Port Elizabeth had developed into an important harbour, mainly because of wool exports in which it completely eclipsed Cape Town, apart from also serving as the seaport of the Orange Free State.[34] There were still no railways in the Eastern Cape, partly because of constructional difficulties and lack of sufficient economic incentive, and partly also because of local rivalries. Overland transport thus continued to depend on the ox-wagon. On many farms the Bantu had already become the principal labour force.[35]

The White population returns for the districts comprising the contemporary Eastern Division of the Cape Colony are reproduced for a number of years in Table 1. (See page 10) At the time of the last pre-censal enumeration in 1856, the number of Whites in the Eastern Province was given as 46,679 persons, some 40 per cent of the total figure for the Cape Colony. White population growth in the East had taken place at an average annual rate of about 4.6 per cent between 1795 and 1856. Initially the rate of increase had been rather more rapid: for example, between 1795 and 1827 the number of Whites multiplied itself by more than eight times, whereas between 1827 and 1856 the figure slightly more than doubled itself.

Inaccurate as they are, these statistics do none the less suggest the approximate influence of the arrival of the British settlers of 1820-21, and also bring out some of the impact of the departure of the Trekkers after 1835. Subsequent growth and expansion was, however, apparently sufficient to roughly restore the White populatio of the East to its relative pre-Trek level vis-à-vis the rest of the Colony.

For reasons set out previously, there is not much point in analysing these data in any detail. Comparisons over a period of time are furthermore rendered largely meaningless because the population statistics reported for different years are often not those of people actually enumerated at the given dates, but simply the latest figures which happened to be available when the returns had to be supplied. An example of the general unreliability of the data is the comment made in connection with the 1855-56 enumeration of the population of Uitenhage, the second oldest of the eastern districts, that "the Civil Commissioner reports that his field-cornets' returns are totally unworthy of credit".[36]

The returns for non-Whites, in particular, in no way reflect the number of those who were actually living in the Colony at the time. At best, they may give an indication of the number of non-Whites who had established some mode of more or less regular contact with the White population. In 1856 there were 151,347 enumerated non-White persons in the Cape Colony, of whom 73,350 lived in the Eastern Province.

TABLE 1 : EASTERN CAPE PROVINCE - WHITE POPULATION, 1795 - 1856

District	1795	1806	1819	1827	1837	1840	1850	1856
Graaff-Reinet	3,079	4,497	9,772	9,531	4,212	3,300	4,798	5,627
Uitenhage		2,454	4,379	3,560	5,128	4,628	3,665	6,700
Somerset East				5,990	2,633	2,615	3,341	4,340
Albany				4,019	8,001	7,579	4,814	6,133
Cradock					2,536	2,727	3,544	4,179
Colesberg					4,606	3,932	3,764	5,466
Port Elizabeth							2,889	3,625
Fort Beaufort							1,927	2,149
Albert							4,518	5,592
Victoria East							712	981
Queenstown								1,887
TOTAL	3,079	6,951	14,151	23,100	27,116	24,781	33,972	46,679
CAPE COLONY	14,954	26,568	42,083	55,675	68,148	70,775	87,157	115,749

II The Period 1865 - 1904

(a) General Background

From an economic point of view, the most outstanding feature of the 19th century in South Africa was the discovery of precious minerals. The rate of economic development was at first boosted by the Griqualand West diamond finds in 1870 and then greatly accelerated by the opening of the Witwatersrand gold fields in 1886. The combined effect of these events was to "transform fundamentally the entire structure of South African economic life".[37] A predominantly agricultural society was suddenly pushed into an agricultural-mining stage, which laid the foundations for the future development of manufacturing industry and a diversified economy in general.

The mineral discoveries marked the end of unlimited pastoral expansion and ameliorated the struggle for land between Black and White by providing alternative avenues of occupation. A large internal market was created for local agricultural products, and sufficient foreign trade generated to offset the anticipated adverse effect of the opening of the Suez canal in 1869 on the South African ports. Port Elizabeth became the main import harbour of the diamond fields and thus also the leading town in the Eastern Province; in 1875 its total population was almost twice that of Grahamstown. (It is a minor irony of history that the first Hopetown diamond had been identified by Dr W. G. Atherstone of Grahamstown in 1867.)

Foreign capital, entrepreneurial skill and labour entered South Africa on a hitherto unprecedented scale. The selective and localised impact of these developments was both immediate and obvious, and in the course of time the diffused influence of the exploitation of precious minerals penetrated all parts of South Africa and all sectors of its economy. There were also momentuous political consequences, and the introduction of the elements of innovation, uncertainty and speculation, characteristic of a capitalist economy, was a potent cause in the rise of the "Poor White" problem.[38]

Before the discovery of diamonds there were less than 70 miles of railways in South Africa, consisting of privately owned local lines in the Western Cape and Natal. These were now taken over by their respective governments and a big push towards the interior commenced from the seaports of Cape Town, Port Elizabeth, East London and Durban. When the Cape Town line reached Kimberley in 1885, the Midlands (Port Elizabeth) and Cape Eastern (East London) lines had been completed as far as the Orange River, the Western and Midlands systems being linked by a junction line at De Aar.

The Witwatersrand gold discoveries served to quicken the pace of railway construction, with Delagoa Bay (Lourenco Marques) becoming a serious competitor in the race for the Rand. At the end of 1892 Johannesburg was connected by rail with the three Cape ports, the Delagoa Bay and Natal lines reaching the gold fields in 1894 and 1895, respectively.

But for the mineral discoveries it is very unlikely that rail links would have been established between the coastal centres and the South African interior during the 19th century at all. The agricultural districts through which the three northbound Cape lines passed were certainly not able to provide them with enough traffic.[39] From the viewpoint of the Cape Midlands, the coming of the railway was therefore entirely due to causes beyond the region itself.

Apart from the influx of overseas immigrants, the mining developments also greatly stimulated migration within South Africa, leading to what has been called a "second Great Trek".[40] The White population during the initial years of the

diamond fields has been estimated between some 10,000 and 12,000 persons.[41] In 1896 an enumeration held in Johannesburg gave a White population of 50,907, of whom only 6,205 were reported to be Transvalers.[42]

Although the statistical documentation of this period leaves much to be desired, the available data do unmistakably show that a substantial growth of South Africa's White population accompanied these developments. According to Cape census figures, the number of Whites in that Colony rose from approximately 190,000 (including British Kaffraria) in 1865 to 237,000 in 1875 and again to 377,000 in 1891. It is not known how many people moved from the more established parts of the Colony to Griqualand West, which was annexed by Britain in 1871 and incorporated in the Cape in 1880. When the Griqualand West figures first appeared in the Cape census in 1891, the region had a White population of almost 30,000 persons. White population growth was even more impressive in the other South African states: In the Orange Free State their numbers increased from 35,000 in 1865 to 78,000 in 1890; in the Transvaal from 30,000 in 1872 to 119,000 in 1890, and in Natal from 18,000 in 1867 to 47,000 in 1891.[43]

(b) Cape Midlands Region

Table 2 (see page 13) gives the White and non-White population figures obtained from the Cape censuses of 1865, 1875 and 1891 for 12 census districts which cover the same area and include the greater part of the present Cape Midlands region.

The total area covered by the 12 districts amounts to 58,244 square kilometres, compared to 72,462 square kilometres under the present Midlands region. However, the individual districts listed in the table also differ significantly from those which bear their names today. The main differences between the Midlands region as constituted in 1865 and at present are the following:

Alexandria (in 1865)	:	Includes Kirkwood (in 1970)
Cradock	:	Includes Maraisburg, part Steynsburg, part Tarka
Fort Beaufort	:	Includes Adelaide
Graaff-Reinet	:	Includes part Aberdeen, part Willowmore
Middelburg	:	Includes Noupoort, part Steynsburg
Somerset East	:	Includes Pearston

The following present-day Midlands districts are excluded from Table 2: Jansenville, Steytlerville, part Aberdeen, part Steynsburg, part Tarka.

While it is therefore not possible to make systematic comparisons between the 19th and 20th century census figures for the Midlands, some insight can none the less be obtained into the population growth of the region when these sets of data are examined separately.

It may be assumed in general that the quality of the data should improve with successive enumerations. The accuracy of the 19th century census statistics is prejudiced especially by confusion resulting from warfare, changing borders

TABLE 2: CAPE MIDLANDS - WHITE AND NON-WHITE POPULATION, 1865, 1875 and 1891

Census District	Area (sq. km.)	5. 3. 1865		7. 3. 1875		5. 4. 1891	
		White	Non-White	White	Non-White	White	Non-White
Albany	4,747	8,086	8,178	8,143	8,356	9,391	13,986
Alexandria	3,934	1,931	4,724	2,157	3,873	2,258	7,160
Bathurst	1,735	1,526	3,341	1,711	4,144	1,833	7,364
Bedford	4,015	1,952	6,398	2,134	6,634	2,301	9,381
Cradock	8,410	5,924	6,304	5,967	6,117	9,276	12,798
Fort Beaufort	1,898	2,767	10,574	2,998	11,750	3,135	11,540
Graaff-Reinet	9,821	6,013	8,682	7,356	9,584	9,591	13,978
Middelburg	5,833	1,976	2,669	2,510	3,466	4,260	6,118
Murraysburg	5,698	987	1,953	1,210	2,561	1,498	2,955
Somerset East	10,039	3,977	6,616	4,713	6,164	6,740	12,267
Stockenström	622	1,326	4,321	1,508	5,001	1,660	6,116
Victoria East	1,492	1,141	7,151	1,133	7,365	1,242	7,633
TOTAL	58,244	37,606	70,911	41,540	75,015	53,185	111,296

of the Cape Colony and population movements in the frontier districts. With these considerations in mind, the following points may be noted:

The White population of the Midlands region (as constituted in 1865) rose by an average annual figure of 1.0 per cent between 1865-75, and by 1.6 per cent between 1875-91. Both these rates are lower than that observed for the Cape Colony as a whole, which may be taken as 2.2 per cent per annum for both intercensal periods. The following territories were annexed to the Cape Colony during the period under review: (i) Between 1865 and 1875: British Kaffraria with a White population of 8,183 in 1864; (ii) Between 1875 and 1891: Griqualand West and Transkeian Territories (excluding Pondoland) with a joint White population of 40,049 in 1891. The intercensal rates of increase for the Colony as a whole were calculated by including (i) and excluding (ii).

In the light of the both absolutely and relatively low increase rates for the Midlands, it may be concluded that the region lost some of its White population to the rest of South Africa during this period. The discoveries of the diamond and gold fields undoubtedly attracted migrants from the Midlands region, as they did from other parts of South Africa and abroad. A further population drain was probably caused by the development of the near-by seaports of Port Elizabeth and East London.

The total population of the Midlands region rose from 108,517 persons in 1865 to 116,555 in 1875 and to 164,481 in 1891. On the basis of these figures, the Whites maintained their relative population share of about one-third during the three censuses. Because of the uncertainties surrounding the non-White population groups, especially with regard to the completeness of their enumeration and accuracy of race classification, no useful purpose would be served by analysing their official returns to any degree.

The general features of the Midlands population during the transition from the 19th to the 20th centuries are reflected by the data in Table 3. (See page 15) There the region is constituted of 16 census districts, which cover an area of 67,383 square kilometres. The coverage is actually 47 square kilometres more for 1904, but this discrepancy does not appear to be sufficiently large to invalidate a general comparison. As such it resembles the present Midlands region somewhat more closely than the previous cluster of 12 districts. Compared with their present composition, Cradock, Fort Beaufort, Middelburg and Somerset East still appear as compound districts in Table 3, while Steytlerville is the only district entirely omitted from the table.

Because of the geographical rearrangement of census districts, the Midlands region (as constituted in 1891) showed a White population of 60,079 in 1891, which exceeds the corresponding figure for the region (as constituted in 1865) by 6,893 persons. Similarly, the 1904 population figures in Table 3 do not exactly coincide with those given for the same year in the following section of this chapter, which refer to the Midlands region in its present constitution. Strict statistical comparability of the two sets of data in Table 3, therefore remains internally confined to the table itself.

According to these figures the White population of the Midlands region increased at an average annual rate of 1.3 per cent between 1891 and 1904, compared to about 3.5 per cent for the Cape Colony as a whole. Between 1891 and 1904 Pondoland and British Bechuanaland were annexed to the Cape Colony. These territories had in 1904 a joint White population of 10,481 persons, who were not taken into account in calculating the 1891-1904 rate of population increase.

TABLE 3 : CAPE MIDLANDS - WHITE AND NON-WHITE POPULATION, 1891 AND 1904

Census District	Area (sq.km.)	5. 4. 1891		17. 4. 1904	
		White	Non-White	White	Non-White
Aberdeen	6,851	3,106	3,429	4,431	3,922
Albany	4,364	9,391	13,986	10,475	19,400
Alexandria	2,453	2,417	7,588	2,606	8,240
Bathurst	1,484	1,833	7,364	2,014	8,737
Bedford	3,173	2,301	9,381	2,337	10,852
Cradock	7,700	6,517	8,532	7,721	11,082
Fort Beaufort	2,227	3,135	11,540	3,699	16,257
Graaff-Reinet	6,972	6,202	10,176	7,830	12,386
Jansenville	4,981	4,170	5,200	5,188	6,148
Middelburg	5,755	4,042	5,647	5,662	8,218
Murraysburg	5,271	1,498	2,955	1,619	1,945
Somerset East	7,905	6,740	12,267	7,843	14,556
Steynsburg	2,883	2,676	4,376	2,994	3,168
Stockenström	813	1,660	6,116	1,868	8,027
Tarka	3,696	3,149	4,294	3,350	6,051
Victoria East	855	1,242	7,633	1,574	15,546
TOTAL	67,383	60,079	120,484	71,211	154,535

Although the population figures returned for the Cape Colony in 1904 were influenced by the abnormal conditions which followed the Anglo-Boer War of 1899-1902, it seems very probable that the Midlands region continued to experience White net out-migration during the intercensal years 1891-1904. The exact impact of the war on Midlands population numbers is not clear. Although actual hostilities did take place in the north-eastern part of the region, there is little evidence that the Midlands population was substantially affected by war casualties. (A British military camp was stationed in the Middelburg district at the time of the 1904 census, but its inhabitants have been subtracted from the official census returns. (See Appendix, p. 37-38).

The total population of the Midlands region (as constituted in 1891) rose from 180,563 to 225,564 persons between 1891 and 1904. The share of the White group in the total population was about 33 per cent in 1891 and 31 per cent in 1904. As was the case previously, the available non-White returns should still be regarded as somewhat suspect.

There appears to have been a significant urbanisation of the Midlands population about the turn of the century: in 1891 some 22 per cent of the region's total population lived in urban areas, this figure rising to 31 per cent in 1904. The corresponding figures for the White population group were 34 and 44 per cent, respectively. The White rural population had, from a practical point of view, already ceased to grow; this drift from the countryside was to become intensified in later years.

III The Period 1904-1960

(a) National Background

The following four tables provide a broad national demographic background for the period 1904-60. Table 4 (See page 17) gives seven sets of census data pertaining to the race composition of South Africa's population in absolute numbers and its distribution according to metropolitan, other urban and rural areas. The matching average annual population growth rates appear in Table 5. (See page 18) Table 6 (See page 22) contains the percentage race composition of the different areas within South Africa, and Table 7 (See page 23) the degree of urbanisation reached by the various population groups.

Like the exclusion of Asiatics from these tabulations, the allocation of the population to metropolitan, other urban and rural areas (instead of the more customary urban-rural distinction), has been effected in the light of the nature of the Cape Midlands population, to which the data in Tables 4-7 are to serve as a standard of comparison. The metropolitan figures consist of the aggregate urban populations of Kimberley, Pietermaritzburg, Bloemfontin and the following economic regions, as defined in the 1960 census : 01, 08, 18, 30, 40, 41, 42, 43, 44, and 63. While it is true that not all the urban areas within these economic regions could be regarded to have a metropolitan character throughout the entire period 1904-60, it would seem even more arbitrary to select different dates, coinciding with the attainment of a certain functional maturity, for the inclusion of specific regions in the metropolitan aggregate.

Apart from the underlying biological, sociological and other such long-term determinants, the three elements of population change - fertility, mortality and (international) migration - were at times influenced by certain extraordinary factors in South Africa.

TABLE 4 : SOUTH AFRICA - POPULATION BY RACE AND AREA, 1904 - 60

Area	Race Group	1904	1911	1921	1936	1946	1951	1960
Total	White	1,117,234	1,276,319	1,521,343	2,003,334	2,372,044	2,641,689	3,088,492
	Coloured	444,991	525,466	545,181	769,241	928,062	1,103,016	1,509,258
	Bantu	3,490,291	4,018,878	4,697,285	6,595,597	7,830,559	8,560,083	10,927,922
	Total	5,174,827	5,972,757	6,927,403	9,587,863	11,415,925	12,671,452	16,002,797
Metropolitan	White	422,864	404,497	589,222	940,664	1,273,359	1,514,923	1,878,830
	Coloured	106,223	125,122	151,461	252,869	336,454	458,018	655,020
	Bantu	279,067	303,844	445,794	857,029	1,322,620	1,709,668	2,388,504
	Total	847,121	899,260	1,266,467	2,177,832	3,104,938	3,920,559	5,248,335
Other Urban	White	165,533	262,662	313,659	405,529	498,019	564,495	693,053
	Coloured	118,508	131,350	129,793	183,238	232,429	270,243	373,002
	Bantu	73,559	190,431	203,520	362,863	504,657	671,924	1,078,079
	Total	363,366	590,621	665,396	978,064	1,306,622	1,552,893	2,214,670
Rural	White	528,837	609,160	618,462	657,141	600,666	562,271	516,609
	Coloured	220,260	268,994	263,927	333,134	359,179	374,755	481,236
	Bantu	3,137,665	3,524,603	4,047,971	5,373,705	5,969,282	6,178,491	7,461,339
	Total	3,964,340	4,482,876	4,995,540	6,431,967	7,004,365	7,198,000	8,539,792

TABLE 5 : SOUTH AFRICA - AVERAGE ANNUAL POPULATION GROWTH RATES (PER CENT) BY RACE AND AREA, 1904-60

Area	Race Group	1904-11	1911-21	1921-36	1936-46	1946-51	1951-60	1904-60	1946-60
Total	White	1.9	1.8	1.9	1.7	2.2	1.7	1.8	2.0
	Coloured	2.4	0.4	2.3	1.9	3.5	3.4	2.2	3.5
	Bantu	2.0	1.6	2.3	1.7	1.8	2.7	2.0	2.4
	Total	2.1	1.5	2.2	1.8	2.1	2.5	2.0	2.4
Metropolitan	White	-0.6	3.8	3.2	3.1	3.5	2.3	2.7	2.8
	Coloured	2.3	1.9	3.5	2.9	6.3	3.9	3.3	4.8
	Bantu	1.2	3.9	4.5	4.4	5.3	3.7	3.9	4.2
	Total	0.9	3.5	3.7	3.6	4.8	3.2	3.3	3.7
Other Urban	White	6.7	1.8	1.7	2.1	2.5	2.2	2.6	2.3
	Coloured	1.5	-0.1	2.3	2.4	3.1	3.5	2.1	3.4
	Bantu	14.3	0.7	3.9	4.1	4.4	5.2	4.9	4.9
	Total	7.1	1.2	2.6	2.9	3.5	3.9	3.3	3.8
Rural	White	2.0	0.2	0.4	-0.9	-1.3	-0.9	-0.4	-1.1
	Coloured	2.9	-0.2	1.6	0.8	0.9	2.7	1.4	2.1
	Bantu	1.7	1.4	1.9	1.1	0.7	2.0	1.6	1.6
	Total	1.8	1.1	1.7	0.9	0.6	1.9	1.4	1.4

During the course of the 20th century the Anglo-Boer War (1899-1902) took place on South African soil, while the country also participated in the First (1914-18) and Second (1939-45) World Wars. The Korean War (1950-53) may be disregarded from the viewpoint of its demographic impact.

In general, wars retard population growth by raising mortality, depressing fertility and discouraging immigration. Although South Africa was not engaged in active warfare during any of the tabulated census dates, the 1904 census statistics, in particular, were affected by the consequences of war.

The rise in mortality caused by the Anglo-Boer War is not reflected by the census figures; during 1891-1904 South Africa's White population increased at an estimated annual average rate of 4.4 per cent.[44] In 1904 there were still some 35,000 British troops awaiting repatriation in various military camps within South Africa, this number being approximately equal to the fatalities suffered on the Boer side.[45] The British army in South Africa had, however, at one time been about 250,000 men strong, many of whom resumed their civilian life in South Africa when the war was over. Moreover, the conclusion of hostilities was followed by a brief large-scale influx of immigrants, of whom some 71,000 landed at the Cape ports in 1903.[46]

These and subsequent developments not only contributed towards the increase in the number of White persons in 1904, but also had a special influence on the pattern of population distribution within South Africa. In 1904 there was an abnormally high concentration of numbers in the coastal cities, this having been intensified by migration from inland towns during the severe depression which followed the brief post-war economic boom.[47]

A redistribution of population consequently took place during the intercensal period 1904-11. Total metropolitan population rose by only 0.9 per cent, while the rate of increase for other urban areas recorded the exceptionally high average annual figure of 7.1 per cent. The number of metropolitan Whites actually declined by 0.6 per cent per annum, which is only partially explained by the departure of British troops between 1904 and 1911. The Bantu were especially prominent in the process of population redistribution in favour of the other urban areas, which can presumably to a large extent be regarded as a response to economic incentives. During 1904-11 the White and Coloured rural populations showed gains which exceeded their respective national growth rates, while the rural Bantu increased at an annual rate not far below their national one.

The seeming reluctance of the South African population to live in metropolitan areas during 1904-11 must therefore be attributed to special short-term factors, rather than a reversal of the trend which had set in subsequent to the mineral discoveries of the 19th century.

Extraordinary influences were also at work during the period 1911-21, when the average rates of increase of all three population groups fell below those observed during 1904-11. The decline was particularly drastic in the case of the Coloureds - from 2.4 to 0.4 per cent per annum. The effects of the First World War appear to have been limited in this connection, and the main reason for the decline is to be found in the devastating influenza epidemic which occurred in the latter part of 1918, concurrently with a worldwide pandemic. The disease was introduced into South Africa via the ports of Durban and Cape Town and spread through the country with great virulence. The exact number of influenza deaths is not known, partly because of the disruption of civil administration caused by the epidemic itself,[48] but it is estimated that some 12,000 White and 500,000 non-White persons may have died.[49] By comparison the White and non-White fatal casualties suffered as a result of the First World War have been given as 8,551 and 3,901 persons, respectively.[50]

A general recovery took place during 1921-36 when "there were no serious abnormal influences to retard the growth of population".[51] This period does include two major economic depressions, those of 1920-22 and 1929-32, but their demographic consequences do not seem to have been significant. Business cycles in South Africa appear to have been positively correlated with the White marriage rate, but not clearly so with the birth rate, which has followed a downward trend during the 20th century as a whole. Both metropolitan and other urban growth was proceeding rapidly for all three race groups at the expense of the rural areas; this matter will, however, be discussed separately later in this section.

During the period 1936-46 the average annual growth rate of South Africa's total population showed the comparatively low figure of 1.8 per cent. Although the Second World War accounted for the loss of some 7,000 White and 2,000 non-White lives,[52] and reduced White immigrants below the number of emigrants, it had no perceptible influence on White or Coloured birth rates. Apparently this low national growth rate must be primarily attributed to incomplete census enumeration of non-Whites, especially of the Bantu.

South Africa's population growth rate rose significantly during 1946-51. The average White figure increased from 1.7 per cent in 1936-46 to 2.2 per cent per annum, which was chiefly the result of a large influx of immigrants during the immediate post-war years. For the entire census interval the immigration surplus amounted to some 54,000 people, or 20 per cent of total population increase. The average rate of increase for Coloureds rose from 1.9 per cent during 1936-46 to 3.5 per cent during 1946-51. The average annual increase of the Bantu population remained at the somewhat implausibly low level of 1.8 per cent.

The observed rate of increase of the Bantu population rose to 2.7 per cent for 1951-60, which accounts for the acceleration in South Africa's rate of total population increase during this period. The White increase rate was down to its previous level of 1.7 per cent, while the Coloured rate maintained a comparatively high level of 3.4 per cent. Both these rates appear to be the outcome of long-term forces which were working to lower White and to raise Coloured relative natural increase.

An outstanding feature of the growth of South Africa's population during the 20th century is the process of urbanisation which has been steadily taking place at two levels, metropolitan and other urban, at the expense of the rural areas. As previously mentioned, this process may be traced back to the advent of modern capitalism which followed the 19th century mineral discoveries, with some interruption at the beginning of the 20th century due to extraordinary circumstances.

In the long run (1904-60) the total population of both metropolitan and other urban areas increased at the same average annual rate of 3.3 per cent, while rural increase amounted to 1.4 per cent, as compared with the overall national rate of 2.0 per cent. During the post-World War II period (1946-60) both metropolitan and other urban growth was more rapid than the long-term increase, being 3.7 and 3.8 per cent per annum, respectively. The average rural rate of increase during 1946-60 was the same as the long-term rate - 1.4 per cent - while the national rate had risen to 2.4 per cent per annum.

Although the rural rates of growth of all three tabulated ethnic groups have tended to fall to a level well below their national one, only the Whites have registered a series of actual negative rates : - 0.4 during 1904-60 and -1.1 during 1946-60. The counterpart of rural loss has been urban gain, and during the period 1946-51 the overall metropolitan growth rate reached the record level of 4.8 per cent per annum, thus coinciding with South Africa's rapid post-war industrialisation. During 1951-60 metropolitan growth decelerated, with the Coloured and Bantu other urban rates rising above their metropolitan increase levels. Although below their

respective national rates, the Coloured and Bantu rural growth rates also showed a strong recovery during 1951-60.

As a result of the diverging growth rates of the different population groups, the ethnic composition of the country as a whole, as well as the metropolitan, other urban and rural areas within it, underwent certain changes during 1904-60, as shown in Table 6. (See p. 22)

In the metropolitan areas the Coloured share did not change very much, while there was a steady rise in relative Bantu numbers at the expense of the Whites. In other urban areas both the White and Coloured population share declined, while in the rural areas the relative position was broadly similar to that observed in the metropolitan areas.

For the country as a whole, the relative shares of the three population groups did not change very much; in general, there was some White decline coupled with some non-White gain. The conspicuous feature of the growth of South Africa's population in this respect was therefore a change in the metropolitan - other urban - rural race patterns rather than in the national one.

Table 7 (See p. 23) shows that while more than three-quarters of South Africa's total population lived in rural areas in 1904, somewhat more than one-half did so in 1960. The metropolitan - other urban - rural distribution of South Africa's total population in 1960, was roughly similar to that shown by the White population at the beginning of the 20th century.

In the case of the Whites as well as the Coloureds there was no great long-term change in the relative share of other urban inhabitants, the growth of metropolitan numbers thus reducing the share of the rural population. In the case of the Bantu the relative shares of both metropolitan and other urban inhabitants rose significantly at the expense of the rural share.

Within the general pattern of rural - urban population drift, the position of the White group has at times been singled out for special consideration. Until the Second World War the phenomenon of White migration away from the rural areas was seen as a synthesis of positive and negative elements, the latter being mainly associated with the "Poor White" question, which has been defined in the following terms: "The problem of the economic and social decline of people of rural origin - more particularly those that have left the farms and drifted to urban areas (and their descendants)".[53]

The origin of this problem may be traced back to the economic transformation of South Africa wrought by the mineral discoveries; it was subsequently aggrevated by the devastations of the Anglo-Boer War and recurrent economic depressions. Droughts, fencing of lands, subdivision of farms, high farm prices and commercial farming methods were among the factors which served to create a redundant rural population group. On the other hand, economic diversification and a reduction in overseas immigration opened new employment opportunities in the urban areas. Together with other contributory causes, these circumstances gave rise to the twin phenomena of increased White rural-urban migration and increased White impoverishment. In several cases the counterpart of rural poverty turned out to be urban poverty. Most of the migrants had owned no land or stock in the countryside; in the cities they possessed no industrial skills. In both instances they had to compete in the unskilled labour market with the non-Whites, especially the Bantu, who were being integrated into South Africa's economic structure on an increasing scale. Consequently the "Poor White" problem became more and more a problem of unemployment. In the 1930's there was an estimated number of 300,000 "Poor Whites" in South Africa, or about 15 per cent of the country's entire White population.[54]

TABLE 6: SOUTH AFRICA - RACE COMPOSITION (PER CENT) OF POPULATION BY AREA, 1904-60

Area	Race Group	1904	1911	1921	1936	1946	1951	1960
Total	White	21.6	21.4	22.0	20.9	20.8	20.8	19.3
	Coloured	8.6	8.8	7.9	8.0	8.1	8.7	9.4
	Bantu	67.4	67.3	67.7	68.8	68.8	67.6	68.3
Metropolitan	White	49.9	45.0	46.5	43.2	41.0	38.6	35.8
	Coloured	12.5	13.9	12.0	11.6	10.8	11.7	12.5
	Bantu	32.9	33.8	35.2	39.4	42.6	43.6	45.5
Other Urban	White	45.6	44.5	47.1	41.5	38.1	36.4	31.3
	Coloured	32.6	22.2	19.5	18.7	17.8	17.4	16.8
	Bantu	20.2	32.2	30.6	37.1	41.4	43.3	48.7
Rural	White	13.3	13.6	12.4	10.2	8.6	7.8	6.1
	Coloured	5.6	6.0	5.3	5.2	5.1	5.2	5.6
	Bantu	79.2	78.6	81.0	83.6	85.2	85.9	87.4

TABLE 7 : SOUTH AFRICA - METROPOLITAN, OTHER URBAN AND RURAL COMPOSITION (PER CENT) OF POPULATION BY RACE, 1904-60

Race Group	Area	1904	1911	1921	1936	1946	1951	1960
Total	M	17.2	15.6	18.6	22.9	27.4	31.3	32.9
	OU	6.1	9.4	9.3	10.0	11.2	12.1	13.7
	R	76.6	75.1	72.1	67.1	61.4	56.8	53.4
White	M	38.4	31.9	38.8	47.0	53.7	57.4	60.8
	OU	14.2	20.3	20.5	20.2	21.0	21.3	22.4
	R	47.3	47.7	40.7	32.8	25.3	21.3	16.7
Coloured	M	24.0	23.8	27.8	32.9	36.3	41.5	43.4
	OU	26.5	25.0	23.8	23.8	25.0	24.5	24.7
	R	49.5	51.2	48.4	43.3	38.7	34.0	31.9
Bantu	M	8.4	8.1	9.8	13.2	17.1	20.2	22.0
	OU	1.7	4.2	4.1	5.3	6.7	7.6	9.7
	R	89.9	87.7	86.2	81.5	76.2	72.2	68.3

M Metropolitan
OU Other Urban
R Rural

Coupled with deliberate policy measures, the forces of economic development which had served to engender the problem, eventually also proved instrumental in solving it, particularly through the increased employment opportunities brought about by the rise of South Africa's manufacturing industry which followed the Great Depression of 1929-32.

After the Second World War White rural depopulation continued to take place at an increased rate. As previously, the drift was mainly in the direction of the metropolitan areas, although other urban areas also experienced fairly rapid population growth on the whole. Although no longer having its former pathological connotation, the White rural-urban migration, however, retained certain problemat aspects.

In general, a process of relative or even absolute rural population decline tends to occur whenever significant industrial development is taking place and "the mere decline of rural population should not necessarily be regarded as having an adverse effect".[55] From an economic viewpoint it may be seen as a readjustment of productive resources, and a continued rural exodus would then suggest that the optimal pattern of resource allocation has not yet been reached.

Among the problematic features of a continuous rural-urban population shift are the following: Persistent rural depopulation tends to lower overall natural increase in the long run, mainly because of a fertility differential between urban and rural dwellers, the latter usually being more prolific. The process also tends to discriminate against the rural areas with regard to properties like the age, education, occupation and income of the migrants, which may lead to regional stagnation - not only of the rural areas proper, but also of the towns and villages which serve and depend upon these areas. Whether such consideration rightly belong to the realm of economics or not is a question on which there exist no unanimity at present.[56]

In addition to problems of general application, the numerical decline of the White rural population has also been said to create a problem peculiar to South Africa. For example: "The Commission agrees that the land will eventually be owned by him that cultivates it in the sweat of his brow: and the Commission is convinced that, if the tide does not turn and the growth of non-White preponderance on the White platteland continues, this state of affairs will in the end hold out a serious threat to White civilisation in this country."[57]

Although the Coloured and Bantu population groups have become urbanised more rapidly than the Whites, especially during the post-World War II years, they have not experienced the same degree of rural population loss, and the Bantu in particular have shown a tendency to gravitate towards rural towns in increasing numbers. Moreover, it appears that the absorption of the Bantu into the economic life of the country has not only led to their rapid urbanisation, but also to a migration from traditional Bantu areas where subsistence farming predominates, to market-orientated rural areas in response to economic incentives.[58]

(b) Cape Midlands Region

The next six tables provide a statistical overview of the size, race compositio growth and urban-rural distribution of the Midlands population during the 20th century.

Table 8 (See p. 25) reproduced the census figures, according to race, for the population of the region as a whole as well as its three constituent subregions;

TABLE 8 : CAPE MIDLANDS - POPULATION BY RACE AND SUBREGION, 1904-60

Region	Race Group	1904	1911	1921	1936	1946	1951	1960
Midlands	White	74,280	74,123	69,042	67,152	63,481	61,370	50,329
	Coloured	41,188	43,034	38,350	50,981	59,065	64,718	79,480
	Bantu	117,414	128,966	133,649	161,168	186,456	193,121	243,956
	Total	233,274	246,526	241,469	279,693	309,477	319,687	384,265
Subregion I	White	21,198	22,318	20,162	17,296	15,059	14,162	12,867
	Coloured	14,699	15,918	14,469	18,803	23,237	25,231	30,964
	Bantu	13,544	12,777	14,961	14,754	15,490	14,976	16,309
	Total	49,557	51,040	49,623	50,899	53,809	54,419	60,174
Subregion II	White	28,407	26,494	24,949	24,057	22,470	21,973	21,866
	Coloured	14,831	14,744	13,136	18,661	21,774	24,061	30,193
	Bantu	28,626	32,711	39,430	42,084	50,954	54,585	71,133
	Total	72,078	74,144	77,701	84,915	95,331	100,735	123,320
Subregion III	White	24,575	25,311	23,931	25,799	25,952	25,235	25,596
	Coloured	11,658	12,372	10,745	13,517	14,054	15,426	18,323
	Bantu	75,244	83,478	79,258	104,330	120,012	123,560	156,514
	Total	111,639	121,342	114,145	143,879	160,337	164,533	200,771
Other Urban-Rural Mix	White	694,370	871,822	932,121	1,062,670	1,098,685	1,126,766	1,209,662
	Coloured	338,768	400,344	393,720	516,372	591,608	644,998	854,238
	Bantu	3,211,224	3,715,034	4,251,491	5,736,568	6,507,939	6,850,415	8,539,418
	Total	4,327,706	5,073,497	5,660,936	7,410,031	8,310,987	8,750,893	10,754,462

whereas Table 9 (See page 27) gives the average annual growth rates of these population groups, expressed as percentages, during the six census intervals and also the periods 1904-60 and 1946-60. The Midlands urban and rural population growth rates appear separately in Table 10 (See page 28). Table 11 (See page 32) gives the percentage race composition of the region and its subregions in their entirety, and Table 12 (See page 33) of the urban and rural areas separately. The degree of urbanisation of the population of the region and its subregions appears in Table 13 (See page 34).

Seeing that there are no metropolitan areas in the Midlands region, it may not always be appropriate to compare the Midlands statistics with those for the country as a whole. For this reason some of the tables in this section include data pertaining to South Africa's population outside the metropolitan areas, which is referred to as the "Other Urban - Rural Mix".

The most conspicuous feature of the Midlands population during the course of the 20th century has been its lack of vitality, or its generally sluggish growth pattern.

The White population of the region has been steadily diminishing throughout the period 1904-60. Although the non-White population has experienced positive growth, the rate at which this has taken place would appear to be below its rate of natural increase. Consequently the total population of the Midlands region has declined from 4.5 per cent of South Africa's total population in 1904 to 2.4 per cent in 1960. It has also failed to keep pace with the growth of the "Other Urban - Rural Mix", declining from 5.5 per cent of the Mix in 1904 to 3.6 per cent in 1960.

The reluctant growth of the Midlands population cannot be explained solely in terms of a largely rural region which has been losing people to urban areas. Not only has rural growth been slower than elsewhere in South Africa, but the Midlands towns have also lagged behind the national growth pattern of "other urban" areas.

(1) Total Population Growth:

The average annual population growth rate of the Midlands region during 1904-60 was 0.9 per cent, the following growth rates being observed in the three subregions - Subregion I: 0.3 per cent; Subregion II: 1.0 per cent; Subregion III: 1.1 per cent.

Seven districts showed a rate above the regional mean and 14 below it. Of the latter one district had an increase of less than 0.1 per cent per annum, with two districts showing negative rates. Three districts just exceeded the mean rate for the "Other Urban - Rural Mix", while only one district (Noupoort) exceeded the average national population growth rate.

The situation was somewhat more favourable during the post-World War II period 1946-60. The mean rate for the Midlands region was 1.5 per cent, compared with 1.8 per cent for the "Other Urban-Rural Mix" and 2.4 per cent for South Africa as a whole. The subregions grew at the following average annual rates during this period - Subregion I: 0.8 per cent; Subregion II: 1.8 per cent; Subregion III: 1.6 per cent. No negative rates were observed in the region, while the districts of Middelburg and Noupoort had rates slightly above the average rate of increase of South Africa's total population.

Between 1904 and 1911 overall urban figures remained virtually static while rural growth took place at the average annual rate of 1.1 per cent. This somewhat

TABLE 9: CAPE MIDLANDS - AVERAGE ANNUAL POPULATION GROWTH RATES (PER CENT) BY RACE AND SUBREGION, 1904-60

Region	Race Group	1904-11	1911-21	1921-36	1936-46	1946-51	1951-60	1904-60	1946-60
Midlands	White	-	-0.7	-0.2	-0.6	-0.7	-0.2	-0.4	-0.4
	Coloured	0.7	-0.2	2.1	1.5	1.8	2.2	1.2	2.1
	Bantu	1.3	0.4	1.3	1.5	0.7	2.5	1.3	1.9
	Total	0.8	-0.2	1.0	1.0	0.7	2.0	0.9	1.5
Subregion I	White	0.7	-1.0	-1.0	-1.4	-1.2	-1.0	-0.9	-1.1
	Coloured	1.1	-1.0	1.8	2.1	1.7	2.2	1.3	2.0
	Bantu	-0.8	1.6	-0.1	0.5	-0.7	0.9	0.3	0.4
	Total	0.4	-0.3	0.2	0.6	0.2	1.1	0.3	0.8
Subregion II	White	-1.0	-0.6	-0.2	-0.7	-0.5	-0.1	-0.5	-0.2
	Coloured	-0.1	-1.2	2.4	1.6	2.0	2.5	1.3	2.3
	Bantu	0.4	0.5	0.6	1.2	1.1	2.2	1.0	1.8
	Total	0.4	0.5	0.6	1.2	1.1	2.2	1.0	1.8
Subregion III	White	0.4	-0.6	0.5	0.1	-0.6	0.2	0.1	-0.1
	Coloured	1.0	-1.4	1.5	0.4	1.9	1.9	0.8	1.9
	Bantu	1.5	-0.5	1.8	1.4	0.6	2.6	1.3	1.9
	Total	1.2	-0.6	1.6	1.1	0.5	2.1	1.1	1.6
Other Urban-Rural Mix	White	3.3	0.7	0.9	0.3	0.5	0.8	1.0	0.7
	Coloured	2.4	-0.2	1.8	1.4	1.8	3.1	1.7	2.6
	Bantu	2.1	1.4	2.0	1.3	1.0	2.4	1.8	1.9
	Total	2.3	1.1	1.8	1.2	1.0	2.2	1.6	1.8

TABLE 10 : CAPE MIDLANDS, URBAN AND RURAL AREAS - AVERAGE ANNUAL POPULATION GROWTH RATES (PER CENT) BY RACE AND SUBREGION, 1904-60

RACE GROUP		REGION	1904-11	1911-21	1921-36	1936-46	1946-51	1951-60	1904-60	1946-60
Urban Areas:	WHITE	MIDLANDS	-0.5	1.4	0.6	0.6	-	0.6	0.6	0.4
		SR I	0.1	1.1	0.2	0.1	-	-	0.3	-
		SR II	-1.2	2.2	0.6	0.7	0.1	0.6	0.6	0.4
		SR III	-0.2	0.9	0.9	0.9	0.2	1.0	0.7	0.6
	COLOURED	MIDLANDS	-0.8	-0.9	2.4	2.9	2.6	1.8	1.4	2.1
		SR I	-1.6	-	2.1	3.5	1.4	2.6	1.5	2.2
		SR II	-1.7	-2.1	2.6	2.8	4.0	1.0	1.1	2.1
		SR III	2.0	-0.4	2.4	2.4	2.3	1.7	1.7	1.9
	BANTU	MIDLANDS	1.4	2.1	3.3	2.5	2.1	3.7	2.7	3.1
		SR I	-3.5	1.6	4.9	1.6	-	2.9	1.9	1.9
		SR II	-4.2	4.9	2.7	3.7	2.5	4.8	2.7	4.0
		SR III	5.5	1.0	3.2	2.8	1.0	3.2	2.8	2.4
	TOTAL	MIDLANDS	-	1.1	2.0	2.1	1.1	2.4	1.6	1.9
		SR I	-1.1	0.8	1.8	1.7	0.5	1.9	1.1	1.4
		SR II	-2.1	1.8	1.7	2.3	1.7	2.8	1.5	2.4
		SR III	2.4	0.7	2.2	2.2	0.8	2.4	1.9	1.8
Rural Areas:	WHITE	MIDLANDS	0.3	-2.5	-1.1	-2.5	-1.9	-2.0	-1.7	-2.0
		SR I	1.0	-2.5	-2.3	-3.6	-3.6	-2.4	-2.5	-3.6
		SR II	-0.9	-2.8	-1.2	-2.8	-1.5	-1.6	-1.8	-1.5
		SR III	1.0	-2.2	-0.1	-1.4	-1.3	-1.7	-0.9	-1.6
	COLOURED	MIDLANDS	1.6	-1.3	1.6	0.2	1.1	2.7	1.0	2.1
		SR I	2.9	-1.5	1.5	1.1	1.9	1.9	1.2	1.9
		SR II	1.5	-0.4	2.2	0.5	-	4.0	1.4	2.6
		SR III	0.2	-2.1	1.0	-1.7	1.3	2.1	0.1	1.8
	BANTU	MIDLANDS	1.3	-	0.7	0.9	0.4	2.0	0.9	1.5
		SR I	-0.1	1.6	-2.1	-0.3	-1.2	-1.2	-0.7	-1.2
		SR II	3.3	1.3	-0.3	1.2	0.8	1.7	1.1	1.4
		SR III	0.8	-0.8	1.5	1.0	0.3	2.3	1.0	1.7
	TOTAL	MIDLANDS	1.1	-0.8	0.5	0.3	0.4	1.7	0.5	1.2
		SR I	1.2	-0.8	-0.9	-0.5	-0.1	0.2	-0.3	0.1
		SR II	1.6	-0.1	-	0.3	0.6	1.7	0.6	1.3
		SR III	0.8	-1.1	1.3	0.6	0.4	2.0	0.7	1.5

unusual state of affairs is a "lower order" reflection of what occurred on the national level during the same period (pages 19 & 20), and appears to be associated with the recovery of the farming sector after the Anglo-Boer War and the severe depression of 1903-09.

(2) White Population Growth:

White population growth in the Midlands region has been negative, the numbers of this group having declined at the average annual rate of 0.4 per cent during 1904-60, as well as 1946-60. Decline was most rapid in Subregion I, while there was almost no change in the size of the White population of Subregion III.

Of the individual districts only Noupoort had an unbroken series of positive growth rates, while positive growth was not uncommon in the districts of Albany, Bathurst, Cradock and Middelburg, especially during more recent years. The greatest relative White population loss occurred in the districts of Aberdeen, Jansenville, Maraisburg, Pearston, Steynsburg, Steytlerville and Stockenström. In general, the smaller districts tended to lose people more rapidly than the larger ones; Noupoort being an obvious exception.

In some cases the observed population trends may be associated with specific circumstances of an economic nature. Noupoort, for example, owes its comparatively vigorous population growth to its development as an important junction between the Cape Midlands and Western railway systems at the beginning of this century. Similarly, the decline of Steytlerville was inaugurated by the collapse of the ostrich feather market at the outbreak of the First World War. White depopulation has been retarded where important educational centres have arisen, for example, in Grahamstown (Albany), Cradock, Graaff-Reinet and Middelburg, while it has again been exceptionally rapid in a district like Stockenström which has failed to develop a sizeable White urban nucleus. The slight long-term growth of the population of Bathurst is associated with the development of Port Alfred as a popular holiday and retirement resort.

On the whole it appears, however, that White depopulation has been a more or less general phenomenon throughout the Midlands region. It has been taking place at a gradual but steady rate, interrupted only in the case of some individual districts.

It would not be a misleading summary of the general situation to state that during the 20th century the White urban population of the Midlands has tended to remain static, while the rural population of the region has experienced a fairly rapid decline.

The urban growth rate has not exceeded one per cent for any of the sub-regions since 1911-21, and no positive rural rates have been observed since 1904-11. Subregion I has experienced the lowest rate of urban growth and the highest rate of rural loss. White rural depopulation has been more rapid than in the country as a whole, and whatever urban growth has taken place, has been extremely modest when compared to the "other urban" areas in South Africa.

(3) Coloured Population Growth:

Here a more positive picture emerges, where population decline is an exception rather than the rule. Negative growth rates were generally prevalent

during 1911-21, but these should be attributed to the abnormally high mortality caused by the 1918 influenza epidemic.

The Coloured population of the Midlands rose by an average annual figure of 1.2 per cent between 1904-60 and by 2.1 per cent between 1946-60. There were no great subregional differences, although growth tended to be comparatively slower in Subregion III. However, the Midlands Coloured growth rates remained well below the national rates, which were 2.2 per cent for 1904-60 and 3.5 per cent for 1946-60. They were also somewhat lower than those for the "Other Urban - Rural Mix": 1.7 per cent during 1904-60 and 2.6 per cent during 1946-60. Coloured population growth in the Midlands has been slowest in those districts which are situated in or adjacent to established Bantu areas, that is, in the eastern part of the region. During 1951-60 the Coloured population of Victoria East fell by an average annual figure of as much as 3.8 per cent.

The Coloureds have in general experienced positive growth in both urban and rural areas. Although the urban growth rates tend to exceed the rural ones, there is on the whole not a great deal of difference between them. The Midlands rural growth pattern is more or less similar to the national one, but the rate of urban growth has been well below that for the "other urban" areas in South Africa, especially after the Second World War. Although some Coloureds have left the country-side, the process does not appear to have been especially rapid in the Midlands, while the attraction of urban areas beyond the region would seem to have been much greater than that of the towns within it. While the Midlands Coloured population has lost some of its natural increase through migration, this process has not been nearly as drastic as in the case of the While population.

(4) Bantu Population Growth:

The Bantu population of the Midlands region increased by 1.3 per cent per annum during 1904-60 and by 1.9 per cent during 1946-60. Increase has been negligible in Subregion I, where negative rates occur frequently. The influenza epidemic of 1918 appears to have affected the Bantu of the region less severely than the Coloureds; only Subregion III had a negative Bantu growth rate for 1911-21. On the whole, the rate of growth of the Midlands Bantu has been below the national level. For the period 1904-60 it was also less than the corresponding "Other Urban - Rural" rate of 1.8 per cent, but during 1946-60 both rates were equal to 1.9 per cent.

Growth patterns in individual districts frequently tend to be erratic, at times reaching such levels which strongly suggest that net in-migration and then again net out-migration have taken place. These observed rates need, however, not always coincide with the real rates, as underenumeration and erroneous race classification is known to have happened occasionally. Itinerant and other temporary workers may also have been included in some census totals. Noupoort shows the extraordinary average annual increase rate of 31.5 per cent during 1904-11, but this can in principle be reconciled with the special local developments previously referred to (See also Appendix, pp. 37, 38). It is however, quite feasible that some inter-district Bantu migration has in fact taken place within the Midlands region, thus contributing towards the erratic growth patterns observed in certain individual districts.

The urban growth rates of the Midlands Bantu are decidedly higher than their rural rates. Both urban and rural growth was more rapid during 1946-60 than 1904-60. Recent urban expansion has been especially rapid in Subregion III: 4.0 per cent per annum during 1946-60. Urban as well as rural growth was slower in the Midlands than elsewhere in South Africa, the difference being rather greater in the case of (other) urban numbers. The overall growth of the Midlands

rural Bantu has, in particular, been held back by the negative rates found in Subregion I.

It is not easy to decide on the basis of the foregoing data alone whether the Midlands region has experienced any significant net out-migration of its Bantu population. The fact that the average national Bantu increase rates for 1904-60 (2.0 per cent) and 1946-60 (2.4 per cent) exceed the corresponding Midlands rates by a clear margin seems to point in that direction, but this need not be taken as conclusive evidence at this stage.

The diverging growth rates discussed above, have in the course of time substantially altered the race composition as well as the rural-urban population distribution within the Midlands region.

(5) Race Composition:

Unlike the national scene, the ethnic composition of the Midlands region has undergone major changes during 1904-60.

In 1904 the White population share in the Midlands (31.9 per cent) was well above its national counterpart (21.6 per cent). In 1960 the case was reversed, the respective Midlands and South African figures being 15.7 and 19.3 per cent. The White population share was more or less halved in all three subregions. In the urban areas the Midlands Whites fell from 45.9 per cent to 26.1 per cent between 1904 and 1960, these figures being broadly indicative of a similar process in the three constituent subregions. Relative rural decline was considerably more rapid throughout the Midlands, the overall regional White share dropping from 26.0 per cent in 1904 to 7.8 per cent in 1960.

The share of the Coloured population rose from 17.5 per cent in 1904 to 20.7 per cent in 1960 for the Midlands as a whole, these figures being slightly greater than twice their corresponding national averages. This rise is to be imputed mainly to conditions in Subregion I, where the Coloureds increased from 29.7 to 51.5 per cent of the total population between 1904-60. The relative Coloured shares in Subregion II and III respectively rose and fell slightly during the same period.

In the urban areas the relative numerical strength of the Coloureds increased only in the case of Subregion I. For the Midlands as a whole the Coloured urban population share fluctuated between some 20 and 26 per cent, tending to decline somewhat in the long run. In the rural areas the overall Coloured share rose from 14.1 per cent in 1904 to 18.4 per cent in 1864, the rise being again particularly strong in Subregion I. The Coloured rural share also showed a clear long-term increase in Subregion II, while it fell from 8.9 to 6.2 per cent in Subregion III during 1904-60. Coloured penetration of this subregion has been generally inhibited by the historically dominant position of the Bantu in the local unskilled labour market.[5]

The relative Bantu population share in the Midlands showed a steady increase from 50.1 per cent in 1904 to 63.5 per cent in 1960. There were gains in Subregions II and III, coupled with a largely static long-term position in Subregion I. The latter forms the most western part of the Midlands region where unskilled Coloured labour predominates, which has again served to keep the Bantu penetration from the East in check.[60]

The overall increase in Bantu numbers had its origin mainly in the urban areas, where the Bantu population share rose by 22.4 per cent during 1904-60, as compared to 13.9 per cent in the rural areas. While the Bantu strengthened their relative numerical urban position in all three subregions, their rural share tended to decline somewhat in the case of Subregion I.

TABLE 11: CAPE MIDLANDS - RACE COMPOSITION (PER CENT) OF POPULATION BY SUBREGION

Region	Race Group	1904	1911	1921	1936	1946	1951	1960
Midlands	White	31.9	30.1	28.1	24.0	20.5	19.2	15.7
	Coloured	17.5	17.5	15.9	18.2	19.1	20.2	20.7
	Bantu	50.1	52.3	55.3	57.6	60.2	60.4	63.5
Subregion I	White	43.0	43.7	40.6	34.0	28.0	26.0	21.4
	Coloured	29.7	31.2	29.2	36.9	43.2	46.4	51.5
	Bantu	27.3	25.0	30.1	29.0	28.8	27.5	27.1
Subregion II	White	39.4	35.7	32.1	28.3	23.6	21.8	17.7
	Coloured	20.3	19.9	16.9	22.0	22.8	23.9	24.5
	Bantu	39.2	44.1	50.7	49.6	53.4	54.2	57.7
Subregion III	White	22.0	20.9	21.0	17.9	16.2	15.3	12.7
	Coloured	10.4	10.2	9.4	9.4	8.8	9.4	9.1
	Bantu	67.5	68.8	69.4	72.5	74.8	75.1	78.0
Other Urban-Rural Mix	White	16.0	17.2	16.5	14.3	13.2	12.9	11.2
	Coloured	7.8	7.9	7.0	7.0	7.1	7.4	7.9
	Bantu	74.2	73.2	75.1	77.4	78.3	78.3	79.4

TABLE 12 : CAPE MIDLANDS, URBAN AND RURAL AREAS - RACE COMPOSITION (PER CENT) OF POPULATION BY SUBREGION, 1904-60

REGION		RACE GROUP	1904	1911	1921	1936	1946	1951	1960
Urban Areas:	Midlands	WHITE	45.9	44.4	45.7	37.5	32.5	30.6	26.1
		COLOURED	26.0	24.7	20.2	21.5	23.3	25.0	23.7
		BANTU	27.5	30.3	33.5	40.6	43.8	44.1	49.9
	Subregion I	WHITE	46.4	50.4	51.9	40.8	34.8	33.9	28.5
		COLOURED	35.4	34.1	31.3	33.0	39.4	41.1	43.9
		BANTU	18.1	15.4	16.6	26.0	25.7	25.0	27.5
	Subregion II	WHITE	42.6	45.6	47.3	40.2	34.2	31.0	25.9
		COLOURED	30.4	31.2	21.3	24.2	25.2	27.6	24.0
		BANTU	26.2	22.7	30.7	35.3	40.3	41.2	49.9
	Subregion III	WHITE	48.6	40.6	41.1	33.9	30.1	28.7	25.2
		COLOURED	15.5	15.0	13.4	13.8	14.1	15.2	14.3
		BANTU	35.3	43.8	44.9	51.8	55.1	55.7	60.0
Rural Areas	Midlands	WHITE	26.0	24.5	20.6	16.2	12.3	11.0	7.8
		COLOURED	14.1	14.7	13.9	16.3	16.2	16.8	18.4
		BANTU	59.9	60.8	65.5	67.5	71.5	71.8	73.8
	Subregion I	WHITE	41.1	40.6	34.5	28.3	21.0	17.7	12.5
		COLOURED	26.5	29.8	28.0	40.2	47.0	51.9	60.8
		BANTU	32.4	29.5	37.5	31.4	32.0	30.2	26.6
	Subregion II	WHITE	37.7	31.7	24.4	20.5	15.0	13.8	10.0
		COLOURED	15.2	15.1	14.6	20.5	20.9	20.6	25.0
		BANTU	47.1	53.2	61.0	59.0	64.0	65.6	65.0
	Subregion III	WHITE	14.0	14.2	12.8	10.5	8.6	7.9	5.6
		COLOURED	8.9	8.6	7.8	7.4	5.9	6.1	6.2
		BANTU	77.1	77.2	79.4	82.1	85.5	85.8	88.2

TABLE 13 : CAPE MIDLANDS - URBAN COMPOSITION (PER CENT) OF POPULATION BY RACE AND SUBREGION, 1904 - 60

Race Group	Region	1904	1911	1921	1936	1946	1951	1960
Total	Midlands	29.5	27.8	31.8	36.6	40.8	41.6	43.2
	Subregion I	35.4	31.8	35.4	45.2	50.7	51.5	55.4
	Subregion II	35.3	29.7	33.7	39.8	44.6	46.0	48.5
	Subregion III	23.2	25.2	28.8	31.9	35.2	35.6	36.3
White	Midlands	41.9	41.2	50.8	57.3	64.6	66.7	71.9
	Subregion I	38.3	36.6	45.3	54.4	63.0	67.1	73.9
	Subregion II	36.9	37.7	49.7	56.4	64.7	66.4	70.8
	Subregion III	51.2	49.0	56.5	59.9	65.4	66.7	71.9
Coloured	Midlands	43.5	39.4	40.4	43.2	49.8	51.7	49.5
	Subregion I	42.2	34.7	38.1	40.4	46.3	45.6	47.2
	Subregion II	52.1	46.5	42.5	43.7	49.2	54.1	47.4
	Subregion III	34.3	37.0	41.0	46.5	56.6	57.8	56.9
Bantu	Midlands	16.1	16.2	19.2	25.8	28.6	30.6	33.9
	Subregion I	23.5	19.5	19.6	40.6	45.3	46.7	56.1
	Subregion II	23.3	15.2	20.4	28.3	33.6	35.5	42.0
	Subregion III	12.1	16.0	18.6	22.7	25.9	26.4	28.0
Total	Other	8.4	11.6	11.8	13.2	15.7	17.7	20.6
White	Urban	23.8	30.1	33.7	38.2	45.3	50.1	57.3
Coloured	Rural	35.0	32.8	39.4	35.5	39.3	41.9	43.7
Bantu	Mix	1.7	5.1	4.8	6.3	8.3	9.8	10.0

By comparison, the ethnic composition of the "Other Urban-Rural Mix" did not change as much during the same period. There the relative White numbers declined from 16.0 to 11.2 per cent, while the Coloured share fluctuated between 7.0 and 7.9 per cent, and the Bantu recorded a long-term rise from 74.2 to 79.4 per cent.

(6) Rural-urban Distribution:

In 1904, 29.5 per cent of the total Midlands population lived in urban areas; in 1960 this figure had risen to 43.2 per cent. Relative urban habitation increased markedly among Whites and Bantu, but tended to be a rather more gradual process in the case of the Coloured population. Of the three subregions only Subregion I had more than one-half of its total population living in urban areas in 1960, the corresponding figures for Subregions II and III being 48.5 and 36.3 per cent, respectively.

In the case of the Whites the process of urban polerisation was a general one: in all three subregions more than 70 per cent of the total population were urban residents in 1960. The Coloureds showed a strong tendency towards urbanisation only in Subregion III; in the other subregions somewhat more than one-half of the Coloured population were still rural in 1960. Although Bantu urbanisation was rapid in all three subregions, their urban component for the Midlands as a whole was only slightly above one-third (33.9 per cent) in 1960.

By comparison, the total urban population component of the "Other Urban - Rural Mix" was rather less than in the Midlands, both in 1904 (8.4 per cent) and 1960 (20.6 per cent). This is largely due to the fact that the Mix includes the population of the predominantly rural traditional Bantu areas in South Africa, althou the urban White component of the Mix was also considerably below the Midlands figure. Only in the case of the Coloureds was there no very great difference betwe the relative urban shares of the Midlands (49.5 per cent) and Mix (43.7 per cent) populations, although the process of urbanisation itself had been more rapid in the case of the Mix. The latter observation applies a fortiori to White and Bantu urban concentration as well.

IV Summary

The first White inhabitants of the Cape Midlands region were migrant stock farmers from the western part of the Cape Colony during the 18th Century. The region was more or less at the same time penetrated by Bantu tribes from the East, while the local Hottentot population largely merged with other races into a new ethnic group, the Coloureds.

White numbers were raised by British settlers during the 19th century and appear to have increased fairly rapidly until the discovery of precious minerals elsewhere in South Africa, in spite of the population loss caused by the Great Trek. Available data suggest that although the White population of the Midlands continued to grow into the 20th century, the region was losing some of its natural increase to other parts of South Africa which offered greater economic opportunities.

Pre-20th century non-White population data tend to be unreliable, but especia after the termination of the frontier wars in the latter part of the 19th century there was increased integration of the Bantu into the economic structure of the region.

During the 20th century there has been an absolute decline in the size of the Midlands White population. Depopulation of rural areas has been comparatively

rapid, while urban numbers have remained virtually static. Like elsewhere in South Africa, the rural exodus was associated with the "Poor White" problem, although normal economic forces were also working towards a rural-urban drift and continued to do so after the disappearance of this problem.

Although non-White population growth was generally positive, the region has apparently experienced some net out-migration of Coloureds; the position of the Bantu is not sufficiently clear to draw any definite conclusions at this stage.

To some extent rural replacement of one population group by others has taken place. Coloured and Bantu farm workers have been substituted for Whites,[61] and there has also been some replacement of Coloureds by the Bantu.[62] There have been reciprocal limits to the Coloured penetration of the eastern and the Bantu penetration of the western parts of the region.

The ethnic composition of the Midlands population has changed considerably during the 20th century, relative Coloured and especially Bantu numbers having risen at the expense of the White population share. Although generally less rapid than in other comparable areas, all three population groups in the Midlands have shown a long-term tendency towards urban concentration.

The most conspicuous demographic features of the region as a whole appear to be its failure to have developed any metropolitan centres and the absolute decline of its White population.

APPENDIX TO CHAPTER I

Adjustment to Published Census Data

Adjustments to census data were attempted only in cases where there existed sufficient practical evidence to support the impression that the published figures may be erroneous or otherwise inappropriate.

It was decided as a matter of principle that, whenever possible, such adjustments should be effected by means of information contained within the general body of census data itself. Only where such direct information was completely lacking, were indirect methods, such as projection and interpolation, resorted to.

The following three sets of census figures were modified to a greater or lesser extent:

(1) 1904 : Middelburg (White, Coloureds, Bantu)

(2) 1951 : Somerset East (Whites)

(3) 1951 : Adelaide, Cradock, Maraisburg, Middelburg, Murraysburg, Pearston, Somerset East and Steynsburg (Coloureds, Bantu)

In the first two cases direct (census) information was used to bring about what seemed to be appropriate adjustments; in the last case no such information was available and consequently use was made of indirect methods.

The scope of the respective adjustments was limited to the needs of the present study. Consequently the 1904 Middelburg adjustment was carried no further than race and rural-urban distribution, while it was also necessary to include the properties of sex and age in the adjustment of the 1951 census data.

The 1904 and 1911 census figures for Noupoort were also scrutinised, as the total population of this magisterial district recorded an average annual increase of 18.5 per cent between those two dates. The town of Noupoort is an important railway junction, and it emerged from further investigation that numerous new installations as well as major extentions to existing works were indeed effected during the intercensal period 1904-11, which also entailed a very substantial increase in the number of railway employees. It was consequently decided to accept the census returns as valid.

(1) 1904 : Middelburg (Whites, Coloureds, Bantu)

According to revised census figures (Report No. 02-02-01) the total population of the magisterial district of Middelburg fell from 20,090 persons in 1904 to 12,667 in 1911; that is, at an average annual rate of 6.7 per cent. As this negative figure seemed excessive in the light of Middelburg's subsequent growth pattern, as well as that shown by the rest of the region during 1904-11 it was decided to investigate whether special circumstances may account for the recorded decline.

It then appeared that there had been a British military camp in the magisterial district at the time of the 1904 census, and that it was disbanded before the census of 1911. According to the 1904 Cape census report, the following numbers were housed within the camp, all of whom were returned as urban:

Whites	4,436
Coloureds	504
Bantu	1,270
TOTAL:	6,210

To obtain the de jure population of Middelburg in 1904, the above figures were subtracted from their corresponding urban census totals.

Even after this adjustment, the total population still showed an average annual decline of 1.3 per cent between 1904 and 1911, which, although not unique in the regional context, does not fit in well with Middelburg's subsequent growth pattern. It is, however, quite possible that there may have been auxiliary personnel, as well as a number of people less directly dependent on the garrison, not living within the actual precincts of the camp in 1904 and who left the district when it was removed. Because of the lack of suitable evidence in this connection, no further adjustment was, however, attempted. Nor was any allowance made for changes in Middelburg's magisterial district boundaries, the influence of which does not appear to have been significant.

(2) 1951 : Somerset East (Whites)

According to published census figures the White population of the magisterial district of Somerset East rose from 4,842 persons in 1946 to 5,654 in 1951 and fell again to 4,299 in 1960. These figures yield the average annual growth rates of +3.2 per cent for 1946-51 and -3.0 per cent for 1951-60, which do not agree with the general trend for Somerset East. Furthermore, these figures suggest net migrations which do not fit into the regional pattern.

Further examination of census data, coupled with local enquiries, showed that there was in fact a transient body of population present in the magisterial district at the time of the 1951 census, consisting of persons attached to a railway construction camp situated at Kommadagga. No returns appear for Kommadagga in the 1946 and 1960 census reports, but some of those who lived there had been enumerated at Rusgenot (Cathcart) in 1946:

	Rusgenot	Kommadagga
	1946	1951
Whites	826	989
Coloureds	2	73
Bantu	36	813
TOTAL:	900	1,875

In order to arrive at a suitable figure for the permanent White inhabitants of Somerset East in 1951, it was decided to disregard all persons living at Kommadagga, the railway camp having been moved from the magisterial district before the 1960 census. Of the 989 White persons enumerated at Kommadagga, 534 were males and 455 females and these numbers were then subtracted from their respective rural returns for Somerset East in 1951. (Although the 1951 census report itself classified Kommadagga as a quasi-urban township, it has subsequently been reclassified as rural in Report No. 02-02-01.) Age groups were adjusted on a pro-rata basis, with the assumption that the upper age limits

for the temporary males and females were 64 and 59 years, respectively.

The following figures for the White population of Somerset East in 1951 were obtained subsequent to the adjustment:

	Males	Females	Total
Urban	1,432	1,508	2,940
Rural	922	803	1,725
TOTAL:	2,354	2,311	4,665

Although the Kommadagga population contained a strong non-White, especially Bantu, component, no allowance was made for possible transient non-Whites in 1951 for the following two reasons: In the first place, the combined number of Coloureds and Bantu returned for the magisterial district of Somerset East in 1946, 1951 and 1960 (being 16,914; 18,403 and 21,807 persons, respectively) did not suggest that the 1951 figure was exceptionally high. In the second place, although direct evidence is lacking, it is not the policy of the South African Railways Administration to move substantial numbers of non-White workers over great distances to work on specific projects. It was therefore assumed that the camp at Kommadagga in 1951 occasioned a non-White population shift which remained within the magisterial district boundaries of Somerset East.

(3) 1951 : Adelaide, Cradock, Maraisburg, Middelburg, Murraysburg, Pearston, Somerset East and Steynsburg
(Coloureds, Bantu)

According to published census figures, the Coloured population of the Cape Midlands region fell from 59,065 persons in 1964 to 57,714 in 1951 and then rose again to 79,480 in 1960. These figures imply that a major net out-migration took place during 1946-51, followed by a net in-migration during 1951-60. Extensive local enquiries, however, failed to provide support for this impression. While some Coloured out-migration was known to have occurred after the Second World War, its scope was not considered to have been sufficient to neutralise natural increase during 1946-51; nor was there significant evidence of a reversal in net migration trends subsequent to 1951.

Next, the possibility of a comparatively large number of Coloureds and Bantu having been wrongly classified by race in the 1951 census was considered. This was very strongly suggested by the following returns for the magisterial district of Murraysburg in particular:

	Coloureds	Bantu
1946	2,850	984
1951	616	3,757
1960	3,654	1,000

Enquiries at Murraysburg did indeed reveal that insufficient and misleading instructions concerning the race of non-White persons had been given to census enumerators in 1951. Further investigation showed that erroneous race classification may well have occurred in other parts of the Midlands region as well, although on a smaller scale.

Apart from evidence gained locally, the Bureau of statistics also reported that "Some discrepancies are reflected in the 1951 coloured and Bantu population figures for certain districts in the Cape Province. This must be ascribed to apparent erroneous classification ... In these districts the 1951 census figures of Coloureds are understated whereas those for Bantu are overstated."[63] It was further confirmed that the districts particularly affected in this manner included Adelaide, Cradock, Middelburg and Murraysburg.

After consultation at the Bureau of Statistics it was decided to attempt an adjustment of the 1951 figures for all those districts where the published census statistics showed an absolute decline of the Coloured population during 1946 - 1951, followed by a substantial increase during 1951 - 1960. The eight districts falling into this category and the average annual rates of increase of their Coloured population, expressed as percentages, are given below. The figures in parentheses are the rates obtained after the adjustment, all of which are positive.

	1946 - 51	1951-60
Adelaide	-2.3 (0.9)	4.4 (2.7)
Cradock	-2.5 (2.1)	5.5 (2.6)
Maraisburg	-2.2 (1.9)	8.1 (5.8)
Middelburg	-4.6 (2.0)	5.9 (2.3)
Murraysburg	-35.8 (1.8)	21.1 (1.8)
Pearston	-0.7 (1.5)	2.7 (1.5)
Somerset East	-1.0 (2.1)	4.4.(2.7)
Steynsburg	-8.0 (1.2)	8.5 (3.6)

The procedure adopted in making these adjustments was the following : It was assumed that the census statistics for 1946 and 1960 may be taken as substantially correct, as may the joint number of Coloureds and Bantu enumerated in 1951. Seeing that demographic information concerning the Coloureds generally tends to be more detailed and reliable than that for the Bantu, it was decided first to estimate the number of Coloureds in the suspect districts by linear interpolation and projection for 1951, and then to obtain the number of Bantu by subtracting the estimated Coloured figures from the joint totals.

In most cases projection of 1946 figures (by sex and quinquennial age groups) yielded smaller population totals than linear interpolation (assuming constant population growth rates during 1946 - 60), the exceptions being the districts of Murraysburg and Pearston. It was decided to accept the lower of the two figures on the following grounds : Inasmuch as there appears to have been an underenumeration of Coloured persons in the 1946 census, it may seem fitting to prefer the higher figure. Yet the quantitative influence of the surmised 1946 underenumeration[64] (which could hardly have exceeded 5,000 persons in the Midlands region) may in all probability have been neutralised by the strong attraction which the metropolitan areas exercised on Coloureds throughout South Africa during the period 1946 - 51, as compared to 1951 - 60. It appears that the Coloured population of South Africa's metropolitan areas increased at the averag annual rate of 6.3 per cent during 1946 - 51, in contrast with 3.9 per cent during 1951 - 60. As a possible acceleration in the rate of natural increase of the Coloured population did not seem to be a decisive factor, the lower of the two alternative estimates therefore appeared more apposite in the present case. The

sex and age composition of the Murraysburg and Pearston configurations (where interpolation had resulted in smaller totals than projection) was obtained by pro-rating. Certain other minor adjustments were also made where these seemed to be called for. The urban-rural distribution of Coloureds and Bantu was determined according to their respective ratios observed in the 1951 census statistics, before the adjustments outlined above.

Altogether 7,004 persons were thus reclassified by race, which considerably affected the Coloured and Bantu average annual growth rates for the Midlands region as a whole. These rates, expressed as percentages, are given below; the adjusted rates appear in parentheses.

	1946 - 51	1951 - 60
Coloureds	-0.5 (1.8)	3.5 (2.2)
Bantu	1.4 (0.7)	2.2 (2.5)

CHAPTER II

THE SEX-AGE COMPOSITION OF THE POPULATION

This chapter is concerned with the innate aspects of the composition of a population, namely, its sex and age structure. Given the race of the group, sex and age are the fundamental or primary characteristics in the analysis of population composition, in the sense that all the other or secondary characteristics may be related to these basic properties in one way or another.[65]

After an introductory section of a general nature, the composition of the White, Coloured and Bantu population groups in the Cape Midlands is examined against the wider national background. This is followed by a brief assessment of the accuracy of the published data. Most of this chapter is based on information yielded by the population census of 1960.

I General Background

The three direct causes of the sex-age structure of a population are its past trends of fertility, mortality and migration, which are in turn influenced by various socio-economic and other determinants. In the absence of migration, one may normally expect the two sexes to be of approximately equal number, males predominating at lower and females at higher ages. This is the outcome of the usual state of affairs that while males tend to exceed females at birth, male age-specific mortality rates are generally higher than the corresponding female rates.[66] Insofar as migration is selective by sex, this overall balance may, of course, be disturbed if migration has been taking place on a significant scale.

Graphically the sex-age structure of a population is represented by a histogram or population pyramid: age groups in ascending order are given along the vertical and the number of people in each group along the horizontal axis, with the males to the left and the females to the right of the origin of the graph. The observed form of its population pyramid - or the manner in which the shape of the histogram may deviate from that of a triangle or pyramid - indicates whether a given population should be considered relatively young or old.

The chief determinant of such a distinction is fertility, high birth rates giving rise to young and low birth rates to old populations. Mortality has a secondary influence in this connection: declining mortality contributes towards juvenescence by reducing infant deaths, but also towards aging by promoting longevity. Declining fertility causes aging at the base, while declining mortality at high ages eventually gives rise to aging at the apex of the pyramid.[67] Generally expressed, the former term denotes a decrease in the proportion of young children and the latter term an increase in the proportion of old people. Demographic aging is therefore the proce which shifts the centre of gravity from the younger to the older people in a populatio Migration tends to have a somewhat selective impact on age distribution: primarily it affects younger adults, but in the course of time it may also affect the entire rang of ages throughout the population.[68]

Temporarily leaving migration out of reckoning, the age composition of a population is then the direct outcome of past fertility and mortality trends, while it at the same time also determines the future character of the population's natural increase. The future composition of a population is therefore a function of its present structure. Because of the varied nature of their respective ultimate determinants, fertility and mortality may often develop independently of one another.

Based on the general pattern of evolution followed by human societies, various population types may be distinguished in terms of a characteristic demographic cycle, consisting of a sequence of phases which represents a changing relationship between relative fertility and mortality levels.[69]

Such a cycle should not be regarded as a rigid growth model which all populations must follow in a predetermined manner. Moreover, there is no unanimity on certain matters of detail such as the exact number of phases comprising a typical cycle and the most effective basis on which these should be defined. For general purposes it is none the less feasible to impute a given population to one of the following five phases of demographic evolution:

Phase 1 : High stationary - with high fertility balanced by high mortality.

Phase 2 : Early expanding - with high, even rising, fertility and progressively falling mortality.

Phase 3 : Maximum relative natural increase - with maximum fertility, about to start falling, and continued progressively declining mortality.

Phase 4 : Late expanding - with fertility declining more rapidly than mortality.

Phase 5 : Low stationary - with low fertility balanced by low mortality.

The reversal of the cycle, or demographic transition, which takes place in Phase 3 coincides with the approximate dividing line between juvenescent and aging populations, the relative share of the younger age group being on the increase in the former and on the decrease in the latter case. In general, young populations therefore experience comparitively high and rising, and old populations comparatively low and falling rates of natural increase.

Generalisations about the relationship between age structure and the rate of natural increase have also been made in terms of (i) progressive, (ii) stationary (The term is exployed here in a general sense and does therefore not necessarily denote a stationary population with a constant age distribution and zero natural increase, as defined by the L column in a life table, although such a population would not be excluded in the present context.) and (iii) regressive population types, with (i) having a high proportion of children and a high rate of growth, (ii) having moderate proportions of children and aged persons with slow growth or stationary numbers, and (iii) having a high proportion of aged persons and declining numbers.[70]

The broad division between young and old populations also reflects to a large extent the existing dichotomy between poor and rich nations.[71] This does not mean that demographically young and economically underdeveloped nations which find themselves in the earlier phases of the population growth cycle, have followed or are bound to pursue a course identical to that taken by demographically old and economically advanced nations in the past. Apart from other considerations, the former are today in the comparatively advantageous position to benefit from the experience, knowledge and resources of the latter, and need therefore not duplicate their patterns of demographic evolution.[72]

The current international situation is largely paralleled within the South African demographic context. The White and Asiatic populations, having completed the first half of the cycle set out above, now find themselves in Phase 4, the Asiatics still at the beginning and the Whites already far advanced in the direction of low levels of fertility and mortality. On the other hand, the Bantu and Coloured population groups may both be allocated to Phase 2, with the Bantu at a comparatively early stage and the Coloureds already approaching Phase 3 of maximum relative natural increase.[73]

While the demographic cycle, or other similar generalisations, often prove to be useful analytical tools on world and national levels, their adequacy may be rather qualified when dealing with regional populations on account of the increasingly important role which migration tends to play at this level.

The selection of an appropriate basic age group unit for the analysis of population structure and the graphical representation of population pyramids is usually determined by the purpose of the study itself and the nature of the available data. Single-year age groups should, for example, be known for the compilation of complete life tables and certain fertility measures, and in the detailed analysis of infant mortality the first year of life is subdivided into fractions of the annual time unit. Except for such special purposes, single-year age grouping may, however, lead to unnecessary detail. Moreover, regional population data are usually not published on this basis. The most common basic age group unit employed in demographic analysis of a general nature is the five-year (quinquennial) interval. Again depending on the nature of the study, quinquennial groups may be aggregated for a certain range of ages, in order to stress selected structural properties of the population under review.

When dealing with the economic implications of a population's age composition, it is customary to effect a tripartite division which indicates the potential proportion of those persons who (i) have not yet entered the labour force, (ii) constitute the labour force itself,and (iii) have already retired from it. Groups (i) and (iii) are then considered to represent the dependent and group (ii) the productive elements of the population.

The number of the two dependent groups may further, either jointly or severally, be expressed as a ratio to those in the productive group, generally known as the dependency ratio.

The rationale of such a tripartite grouping rests mainly on the following considerations:-

(i) Children in the bracket 0-14 years are usually considered to be of pre-working age. In economically underdeveloped societies it is, however, possible that children in this age group may already be actively engaged in the labour force. In societies where advanced levels of pre-work education or training are widespread, it may again be more realistic to include the persons aged 0-19 years in this category.

(ii) Persons falling within the range 15-64 (10-64 or 19-64) years are usually regarded to represent the potential supply of labour within a given population. In some cases it may also be appropriate to modify the higher of the two age limits. For example, in predominantly agricultural societies the theoretical retirement age of 65 years may be unrealistically low, while in the case of female workers a lower retirement age, say, 60 years may be applicable - apart from their temporary or permanent separation from the labour force at earlier ages for family reasons.

(iii) Persons aged 65 years and over are in most cases considered to have permanently retired from the labour force. Within the context of published statistics, subdivisions of persons above this limit into quinquennial age groups usually stops well short of the maximum ages found in the population. (In most current South African age-specific population data, persons aged 75 years and over are aggregated into one group without a specified upper limit.)

The study of various other properties of a population involves different functional age groupings. Such limits may be reasonably well-defined as in the

case of fertility analyses where the females in the reproductive age range of 15-44 or 15-49 years are considered to form a significant group. They may again be comparatively more elastic as in the study of migration, where young adults usually form the focal group but where persons of other ages cannot be excluded from the number of migrants.

There are no hard and fast rules as to what should be regarded as the ideal age composition of a population. "It would seem that a certain 'balance' among age classes is socially most desirable, though it is impossible to define such an 'optimum age distribution', and it would presumably differ in different situations".[74]

The above discussion will now serve as a general background to an analysis of the sex-age structure of the White, Coloured and Bantu population groups in the Cape Midlands. In each case the main features of the regional population are compared with those of its national counterpart.

II White Population

Previous research has yielded sufficient proof to show that South Africa's White population has been undergoing a steady process of aging since the beginning of the 20th century. Various statistical techniques may be used to illustrate this phenomenon; for example, comparison of the median age of the population and the relative shares of different age groups at successive censuses.

The main features of the evolution of the South African White population pyramid over time have been narrowing at the base, bulging in the middle and diminished pointedness at the apex. The degree of aging experienced by the South African Whites is, however, not yet as advanced as that found in many other western populations. The chief cause of aging has been diminished fertility, which has again been associated with the increased urbanisation of the White population group. Since the second World War the median age of the rural White population has come to exceed that of its urban counterpart, and recently the rural crude birth rate has fallen below the urban level. Both these phenomena are considered to be the outcome of large numbers of young people having left the countryside for urban areas.[75]

The long term aging of the South African White population is therefore taken as datum in this chapter.

(a) Sex Ratio

TABLE 14 : Whites - Maculinity Ratio 1960 - Males per 100 Females

Age Group	South Africa	Midlands	Subregion I	Subregion II	Subregion III
All Ages	99.3	97.7	95.4	98.7	97.9
0-14	103.8	106.7	108.4	102.4	110.4
15-64	99.3	96.0	91.2	99.7	97.4
65+	77.7	78.9	82.5	81.3	73.0

It appears from Table 14 that the total sex or masculinity ratio in the South African White population was 99.3 males per 100 females at the time of the 1960

census, the corresponding Midlands figure being 97.7 males per 100 females. A comparison of the masculinity ratios for the three age brackets 0-14, 15-64 and 65+ years shows the generally expected tendency for males to exceed the number of females at lower ages while this relationship becomes progressively reversed at higher ages.

For the ages 0-14 years the Midlands masculinity ratio (106.7) exceeded the national one (103.8), this also being the case with the highest age group 65+ where the respective Midlands and national ratios were 78.9 and 77.7 males per 100 females. The most significant divergence of the two ratios was however, observed in the age group 15-64 years, where the national figure (99.3) clearly exceeded that for the Midlands (96.0). As most migrants may be assumed to fall into this age bracket, the observed difference between the two ratios suggests some male bias in the sex-selectiveness of migration. The comparatively lower Midlands masculinity ratio for the age group 15-64 years could then be the joint long term outcome of a male surplus among immigrants from abroad, few of whom have settled in the Midlands, and an overall male surplus among migrants who have left the region to live in other parts of South Africa, during the past number of decades.

The subregional ratios in the Midlands show certain individual differences, but do not deviate fundamentally from the general situation. Population numbers on this level tend to be comparatively small, and are as such greatly influenced by the presence of institutional groups.

(b) Age Structure : (1) Median Age

Table 15 gives the median age of the White population in the individual magisterial districts, the three constituent subregions as well as the Midlands region and South Africa as a whole at the time of the 1946 and 1960 censuses. The median value divides a population into two equal parts above and below a given age, the figures in this and subsequent tables having been calculated on the basis of quinquennial age groups.

At first glance the overall median age in the Midlands may appear somewhat lower than what might have been expected in view of the continuous process of net out-migration to which the region has been subject. The fact that the observed median age actually declined - from 27.5 to 26.5 years - between 1946 and 1960 may also seem paradoxical for the same reason.

The median age in individual magisterial districts shows a wide range of dispersion. In 1960 seven districts showed a median value below the national average of 25.8 years, while eight of the remaining fourteen districts had already reached a median age of more than 30 years.

The comparatively young populations were those of Noupoort (22.7 years), Albany (23.3), Graaff-Reinet (23.9), Cradock (24.3), Adelaide (24.7), Somerset East (25.1) and Middelburg (25.7). Apart from Noupoort, which in several ways is rather an exception in the regional pattern, these districts also experienced a significant fall in their median age between 1946 and 1960. The common characteristics of these districts is the presence there of certain educational and/or other similar training institutions, which have experienced considerable development since the Second World War and have served to attract people of pre-working ages to the region, thus to some extent counteracting the effects of the outflow of persons in the working ages.

At the other extreme, quite advanced median ages were found among the populations of the following districts in 1960: Steytlerville (30.9), Tarka (30.9),

Alexandria (31.5), Victoria East (34.7), Pearston (35.2) and Bathurst (40.0). With the exception of Tarka, all these districts had experienced clear increases in their median values since 1946.

TABLE 15 : Whites - Median Age (years)

Geographical Unit:	1946	1960
Aberdeen	25.9	28.9
Graaff-Reinet	25.2	23.9
Jansenville	28.1	28.0
Murraysburg	28.5	27.1
Steytlerville	28.3	30.9
SUBREGION I	24.6	26.5
Cradock	26.4	24.3
Maraisburg	27.2	29.8
Middelburg	28.9	25.7
Noupoort	25.3	22.7
Pearston	31.3	35.2
Somerset East	26.2	25.1
Steynsburg	31.8	33.2
Tarka	32.3	30.9
SUBREGION II	27.7	25.9
Adelaide	27.1	24.7
Albany	25.4	23.3
Alexandria	29.5	31.5
Bathurst	35.5	40.0
Bedford	26.6	27.7
Fort Beaufort	27.8	28.6
Stockenström	30.8	32.1
Victoria East	33.1	34.7
SUBREGION III	27.8	27.1
CAPE MIDLANDS	27.5	26.5
SOUTH AFRICA	26.4	25.8

The remaining six magisterial districts formed an intermediate group in terms of their median age for 1960: Murraysburg (27.1), Bedford (27.7), Jansenville (28.0), Fort Beaufort (28.6), Aberdeen (28.9) and Maraisburg (29.8). On the whole, these districts also recorded a rise in their median ages during the period 1946-60.

To some extent the inherent properties of the median as a measure of central tendency may limit its usefulness as an index of true demographic aging: The median value simply indicates that one half of the population falls into ages below and the other half into those above a given age, and thus fails to record any heaping of numbers which may occur at certain points along the age scale.

From what has been set out above, it does at any rate emerge that it is the first of the three groups of magisterial districts which has served to keep the median age in the Midlands as a whole at a comparatively low level, and that this group was also responsible for the observed decline in the region's median age between 1946 and 1960.

The median age also fell in the case of the national White population - from 26.4 years in 1946 to 25.8 years in 1960. (The fall in both national and regional median values actually occurred between the census years of 1951 and 1960. In 1951 the following median ages were observed: South Africa 26.6 years; Cape Midlands 28.3 years.) While the long term aging being experienced by the South African population has been established beyond doubt, it therefore appears that special factors may operate in the short run to interrupt the general trend. In this instance economic prosperity which has favoured earlier marriages and births may have been the decisive factor.[76] Because of such fluctuations in the birth rate the aging of the South African White population may at this stage still be described as "partial" rather than "total".[77]

(b) Age Structure: (2) Population Pyramid:

To gain a more detailed insight into the age structure of the Midlands population and the aging process to which it has been subject, it is informative to examine the region's population pyramid and to compare it with its national counterpart:

Figures 1 and 2 on page 49 represent the national and regional population pyramids, respectively, where the two sexes have been divided into quinquennial age groups on a percentage basis, with all persons aged 75 years and more aggregated into the highest age group. In figure 3 the two pyramids have been superimposed upon each other, which clearly brings out the structural differences between the national and regional populations. (A Midlands deficiency vis-à-vis the national population is indicated by a striped and a surplus by a black rectangle). Figure 4, 5 and 6 on page 50 reproduce the three subregional pyramids.

Narrowing at the base of the pyramid (ages 0-4) has developed rather further on the regional than the national level. The regional deficiency becomes reduced for the age group 5-9 years in respect of both sexes, and is converted into a small male surplus for the group 10-14, with a small female deficiency persisting at these ages. For the age bracket 15-19 years, which includes a large pre-work component of young people at educational and/or other training institutions, there is a clear Midlands surplus in the case of both sexes, with the males rather more prominent. In the middle portions of the pyramid there is a substantial regional deficiency vis-à-vis the national population, ranging from the ages 20-49 for males and 20-44 for females. The regional and national percentage shares coincided for males aged 50-54 and females aged 45-49 years. A substantial and unbroken Midlands surplus is then observed for males and females from the respective ages of 55 and 50 years onward, which tends to increase at higher ages.

The shape of the Midlands pyramid is therefore characterised by advanced contraction at the base, bulging at certain schoolgoing ages, indentation in the

WHITES

FIG.1: S A

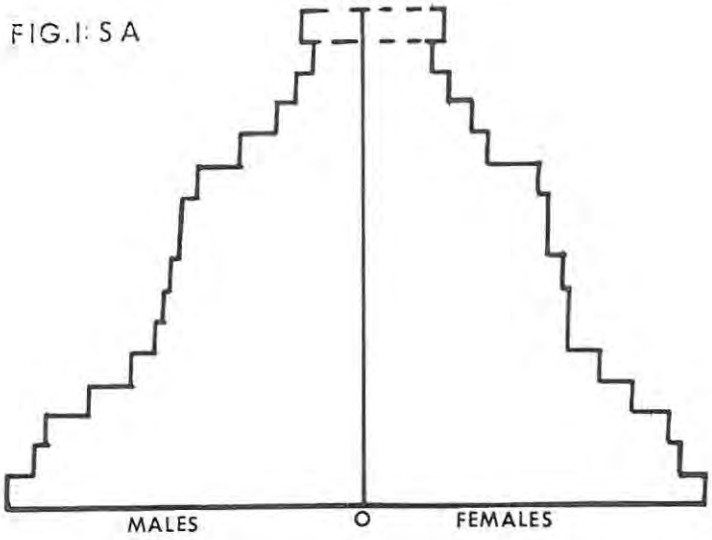


FIG.2: ML

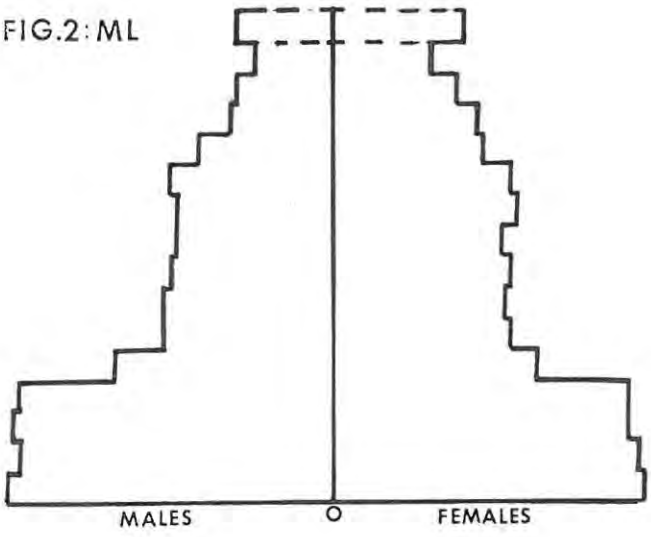
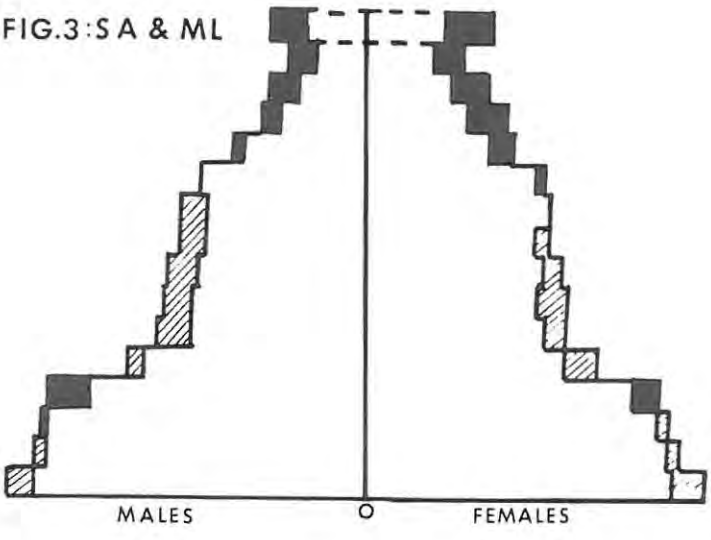


FIG.3: S A & ML



WHITES

FIG.4: SR I

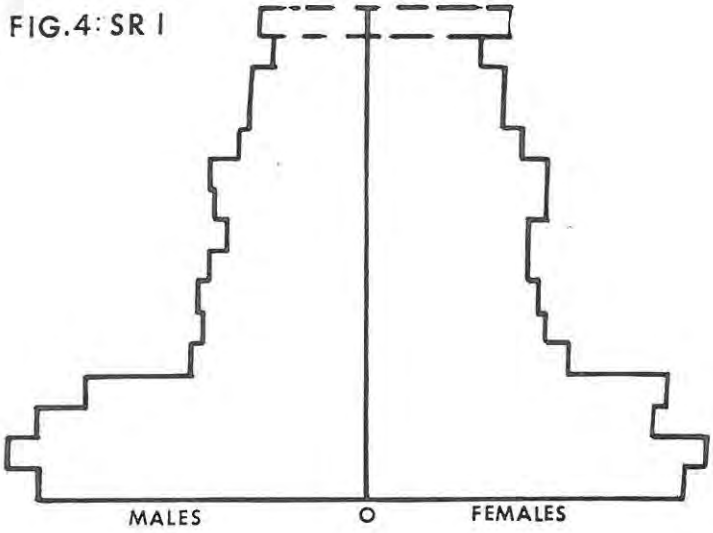


FIG.5: SR II

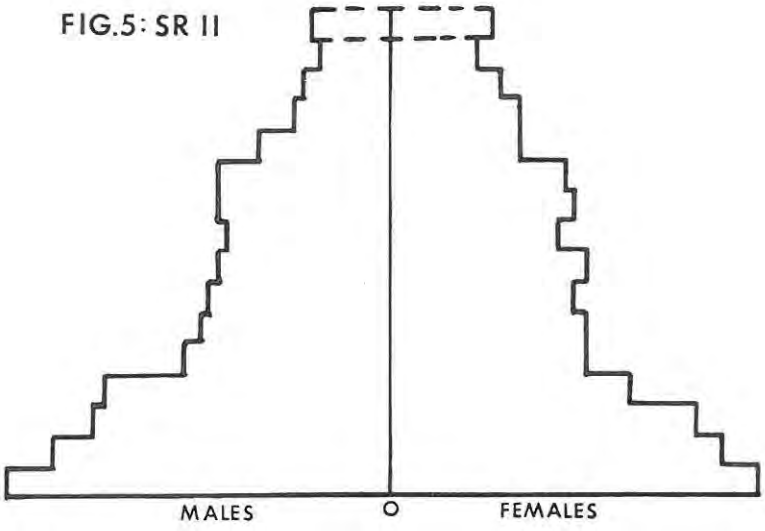
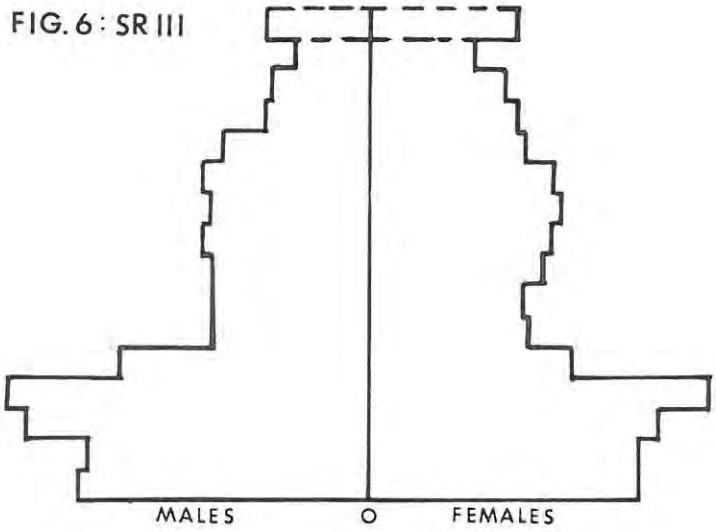


FIG. 6 : SR III



middle, and a reluctance to taper off toward the apex. As such it has largely lost the triangular form, moving upward in broad sections rather than by gradual (quinquennial) steps.

The Midlands pyramid has been shaped by migration to a large extent. The comparatively narrow base may, in principle, be associated with the out-migration of children who accompany their parents, as well as the loss of the future offspring of the departing persons. At ages 15-19, in particular, the bulge is caused by the presence of a preworking group of sojourners, forming a revolving population around these ages. The indentation in the middle is the direct outcome of the net out-migration of persons in the working ages, with the cumulative male loss being somewhat greater. The bulging at the higher ages is not only caused by the inherent longevity of the regional population, but is also accentuated by persons who enter the Midlands for retirement purposes. Aging is therefore present both at the base and the apex of the pyramid, being especially advanced in the latter case.

Figures 4, 5 and 6 (see page 50) represent the population pyramids for Subregions I, II and III, respectively. Although the three figures display significant individual differences, a detailed study of age composition shows that relatively young and old populations are not so much to be found in the form of any specific geographical clusters within the Midlands, but rather tend to cut across the administrative subregional boundaries. This point may be illustrated by the 1960 population pyramids for the magisterial districts of Noupoort, Bathurst and Albany, which are respectively reproduced in Figures 7, 8 and 9 on page 52.

Noupoort has the youngest population in the Midlands. Contrary to the regional trend, some bulging occurs in the middle sections of the pyramid, while aging at the base and the apex is not so far advanced as on the national level. Within the Midlands context Noupoort's population may therefore be deemed to have a unique structure.

Demographic aging is most advanced in the case of Bathurst. Here the histogram has completely lost the triangular form and resembles an hourglass rather than a pyramid on account of its topheavy structure. Although numbers at high ages are supplemented by persons who come to retire in the district, the Bathurst figure may be regarded as the regional extreme which the following other districts are approaching as well: Aberdeen, Alexandria, Maraisburg, Pearston, Steynsburg, Steytlerville, Stockenström, Tarka and Victoria East.

Measured by the value of its median age (23.3 years in 1960), Albany has a comparatively youthful population. It is, however, clear from Figure 9 that its relative youth does not depend on fertility, but rather on an exceptional concentration of young people (especially males) in the age bracket 10-24 years, whose numbers are boosted especially by scholars, students and military trainees from outside the district. Although persons within this group are wont to leave the district after the conclusion of their training, they are continuously being replaced by new generations of temporary residents with similar demographic properties. A comparatively youthful bulge will therefore be permanently superimposed on an otherwise aging population. Other magisterial districts with a more or less similar age structure are: Adelaide, Cradock, Graaff-Reinet and Middelburg.

The following districts belong to an intermediate category between the Albany and Bathurst cases: Bedford, Fort Beaufort, Jansenville, Murraysburg and Somerset East. Although aging has set in at the base and the apex of the pyramid, it is to some extent being retarded by the presence of certain institutional groups.

On the whole, the more detailed study of the age composition of individual magisterial districts by means of population pyramids therefore provides a picture

WHITES

FIG. 7: NOUPOORT

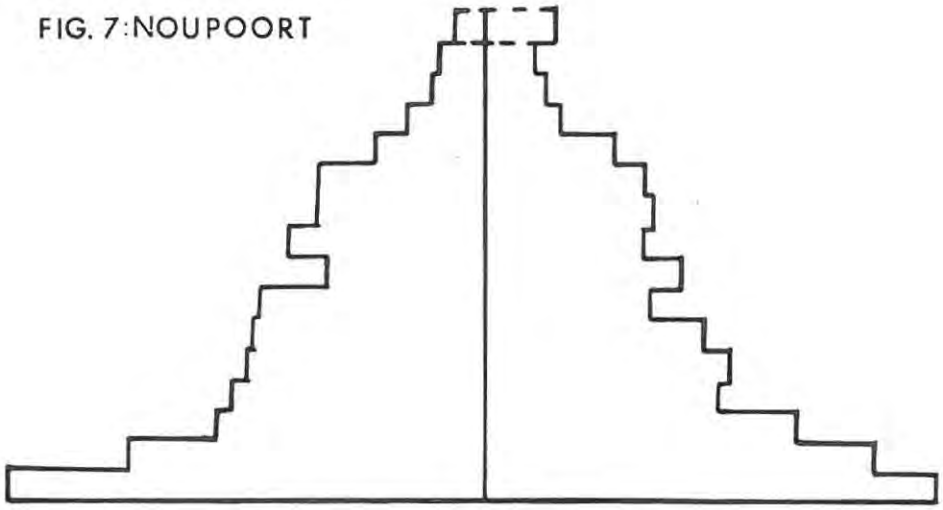


FIG. 8:
BATHURST

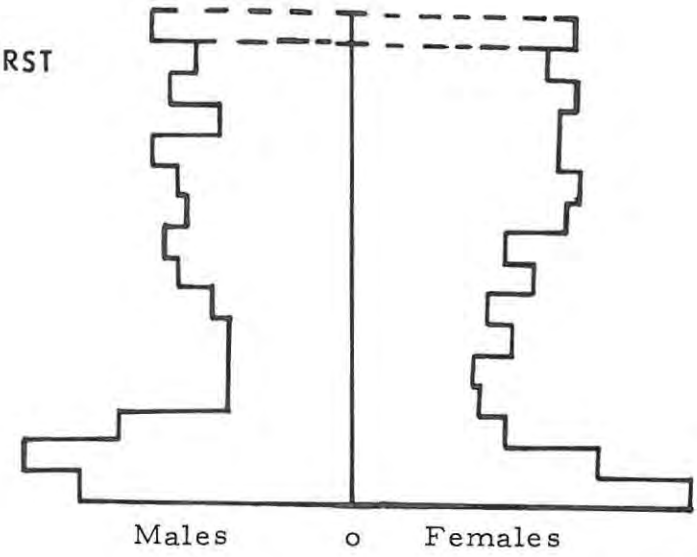
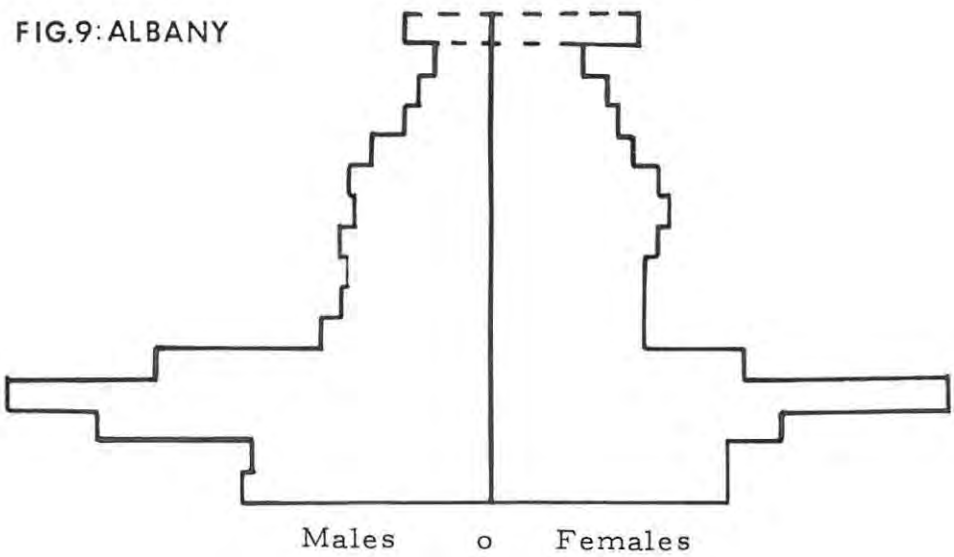


FIG. 9: ALBANY



rather similar to that which was obtainable by a comparison of individual median age values.

(b) Age Structure: (3) Dependency Ratio:

TABLE 16: WHITES - AGE GROUPS AND DEPENDENCY RATIO - 1960

	South Africa	Midlands	Sub-Region I	Sub-Region II	Sub-Region III
Age Group (Per Cent)					
0 - 14	32.2	30.8	32.1	33.2	28.4
15- 64	61.1	59.0	56.4	58.1	60.7
65+	6.7	10.2	11.5	8.7	10.9
0 - 19	41.1	40.8	41.6	41.8	39.9
20- 24	52.2	49.0	46.9	49.5	49.2
Dependency Ratio:					
0-14+65+/15-64	63.7	69.5	77.3	72.1	64.7
0-14/15-64	52.7	52.2	56.9	57.1	46.8
65+/15-64	11.0	17.3	20.4	15.0	17.9
0-19+65+/20-64	91.6	104.1	113.2	102.0	103.3
0-19/20-64	78.7	83.3	88.7	84.4	81.1
65+/20-64	12.8	20.8	24.5	17.6	22.2

From the broadly functional tripartite percentage division of the population into the age bracket 0-14, 15-64 and 65+ years in Table 16, the Midlands population also appears older than South Africa's total population in the sense that the group 0-14 (children or younger dependants) is relatively smaller and the group 65+ (aged persons or older dependants) relatively larger on the regional than on the national level. The age group 15-64 years (adults or producers) from which the bulk of the labour force is drawn, formed 59.0 per cent of the Midlands and 61.1 per cent of the South African population in 1960.

In an economic sense the two groups of 0-14 and 65+ years are usually regarded as being dependent on the group 15-60 years, their numerical relationship being expressed as the dependency ratio. The overall 1960 dependency ratio (all dependants/producers) was 69.5 in the Midlands and 63.7 in the national population. When the burden of dependency is split between younger and older dependants, there is not much difference between the regional and national ratios in the former case (younger dependants/producers). The burden of dependency caused by aged persons (older dependants/producers) does consequently differ markedly, the Midlands and South African ratios for 1960 being 17.3 and 11.0, respectively.

In view of what was set out previously, there is some doubt as to whether it would be appropriate in the present case to define the entire group 15-64 years as

representing the potential supply of labour. In South Africa a large proportion of White persons in the age group 15-19 years are still undergoing some form of pre-work training; to a lesser extent this applies to certain higher ages as well. This state of affairs is especially evident in the Midlands where young people enter the region for educational purposes on a considerable scale, with the bulk of them, however, eventually leaving again instead of being absorbed into the local labour force. The question therefore arises as to whether at least the quinquennial grou 15-19 should not be excluded from the potential labour force and rather be include among the younger dependants. As a question of this nature may, however, give further rise to the desirability of effecting a number of additional refinements in order to calculate a more realistic configuration representative of the potential labour force, this matter will not be pursued further in the present context. It is sufficient to note that the transfer of the group 15-19 from the ranks of produce to those of younger dependants would tend to widen the margin between the regiona and national dependency ratios, as set out in Table 16. (See p. 53)

It should also be pointed out that in the Midlands population the age groups 0-14 and 15-64 years actually declined by respectively 2.7 and 9.1 per cent between 1946 and 1960, while the persons aged 65+ increased by 8.8 per cent. The age group 15-19 years showed a slight increase (1.7 per cent) during the same period. If the potential producers in the population were limited to the age bracket 20-64 years, then this group diminished in the Midlands by 11.1 per cent during 1946-60. Within this group the younger adults aged 20-44 years are usuall considered among the most migration-prone persons in a population, and it is therefore significant that their numbers fell by 15.9 per cent in the Midlands regio between 1946 and 1960. In 1960 the group 20- 4 years formed 29.2 per cent of th regional and 42.2 per cent of the national population.

Of the three subregions, Subregion I had the highest total dependency burden, mainly because of aging at the apex of the population pyramid, while the group 20-44 years was also smaller (27.5 per cent) than in the other two sub-regions.

III Coloured Population

(a) Sex Ratio

TABLE 17: Coloureds-Masculinity Ratio 1960 - Males per 100 Females:

Age Group	South Africa	Midlands	Sub-Region I	Sub-Region II	Sub-Region III
All Ages	99.1	98.6	98.6	97.9	99.8
0-14	99.6	100.0	99.6	98.8	101.8
15-64	98.8	97.1	97.4	96.6	98.4
65+	88.2	105.0	100.0	110.5	92.3

As it appears from Table 17, in 1960 the South African Coloured population had an overall masculinity ratio of 99.1 males per 100 females, the corresponding Midlands figure being 98.6 males per 100 females, with no great subregional differences.

The masculinity ratios for the age group 0-14 years were 99.6 in the country as a whole and 100.0 in the Midlands region. Again there were no significant subregional variations. It is difficult to decide whether the somewhat lower Midlands figure (97.1) found in the "migration-prone" age bracket 15-64 should by itself be taken as an indication of any sex-selectiveness of migration, the national masculinity ratio for ages 15-64 being 98.8. The only really striking difference between the national and regional sex ratios was observed in the highest age group 65+ years, these figures being 88.2 and 105.0 males per 100 females, respectively. Here the following subregional values were recorded: Subregion I: 100.0, Subregion II: 110.5 and Subregion III: 92.3. While these figures do, of course, suggest greater male longevity on the regional than the national level, it is questionable whether any definite conclusions should be drawn from them because of the small absolute numbers in the case of the regional population.

(b) Age Structure: (1) Median Age

TABLE 18: COLOUREDS - MEDIAN AGE (YEARS):

Geographical Unit	1946	1960
Aberdeen	15.2	14.7
Graaff-Reinet	16.6	14.5
Jansenville	16.2	15.0
Murraysburg	14.6	14.1
Steytlerville	15.1	13.5
SUBREGION I	15.9	14.4
Cradock	16.9	14.9
Maraisburg	16.9	13.9
Middelburg	17.2	15.2
Noupoort	17.8	15.7
Pearston	16.1	14.1
Somerset East	16.5	14.5
Steynsburg	17.7	14.3
Tarka	14.5	17.3
SUBREGION II	16.9	14.8
Adelaide	17.8	15.5
Albany	18.8	16.1
Alexandria	18.4	17.6
Bathurst	22.8	21.8
Bedford	16.4	14.5
Fort Beaufort	24.0	23.2
Stockenström	17.8	15.7
Victoria East	16.7	20.5
SUBREGION III	19.0	16.3
CAPE MIDLANDS	17.0	15.1
SOUTH AFRICA	18.1	17.1

The median ages found among the Coloured populations of the 21 magisterial districts of the Midlands region in 1960 varied between 13.5 (Steytlerville) and 23.2 years (Fort Beaufort), a range of 9.7 years as compared with 17.3 years in the case of the White population group. The highest figure was observed in Fort Beaufort, which has a large institutional (hospitalised) population in the adult ages. The only other districts which had a median age in excess of 20 years were Victoria East (20.5) and Bathurst (21.8), and in both cases the total population was well below 1,000 persons. In general most districts were farily close to the regional median value of 15.1 years, the subregional figures being the following : Subregion I : 14.4, Subregion II: 14.8 and Subregion III: 16.3 years.

Thus the Coloured population of the Midlands may be regarded as a very young one, in terms of both the 1960 national figure for Coloureds (17.1 years) and the median value for the regional White population (26.5 years) in the same year. Unlike the case with the White population, there is no evidence of any long term demographic aging among the South African Coloureds. On the contrary, there has been recent indication of juvenescence, as may be expected in view of the course followed by the demographic cycle, set out previously.[78] From the figures in Table 18 it appears that the median age of both the regional and national Coloured populations fell between 1946 and 1960, from 17.0 to 15.1 years in the former and from 18.1 to 17.1 years in the latter case. These figures cannot by themselves be taken as prima facie evidence of past juvenescence, as there is reason to believe that there was some appreciable underenumeration of young children in 1946, but there are neither theoretical nor empirical grounds to doubt that such Coloured juvenescence has indeed been taking place.

(b) Age Structure : (2) Population Pyramid :

Figures 10 and 11 on page 57 represent the 1960 South African and Midlands Coloured population pyramids, respectively. These two pyramids are compared on a percentage basis in Figure 12, where Midlands surpluses are indicated by black and deficiencies by striped rectangles. The three subregional pyramids are shown in figures 13, 14 and 15 on page 58.

The structure of the Midlands pyramid also underlines the extreme youthfulness of the region's population. There is a clear surplus in the three youngest quinquennial age groups vis-à-vis the national population, followed by both male and female deficiencies in the broad central portions of the pyramid. A small Midlands surplus is observed at the apex of the pyramid. The two outstanding features of the Midlands Coloured population thus appear to be its prolific fertility and the tendency of adults of both sexes, with some male preponderance, to migrate out of the region. Subregional differences are not great. The broadest base is found in Subregion I, while Subregion III has a relatively larger proportion of people in the middle and higher age groups. The pyramid of Subregion II fits the regional model very closely.

The Coloured and White population pyramids for the Midlands region are therefore quite dissimilar in virtually all respects. While aging coupled with migration have drastically narrowed the base of the White pyramid, no such consequences are evident in the case of the Coloureds. Aging at the apex is comparatively minor in the Coloured pyramid.

(b) Age Structure : (3) Dependency Ratio :

As a result of the youthfulness of the Midlands population, there is a heavy burden of younger dependants on the productive group, the latter having also been depleted by migration.

COLOUREDS

FIG.10: SA

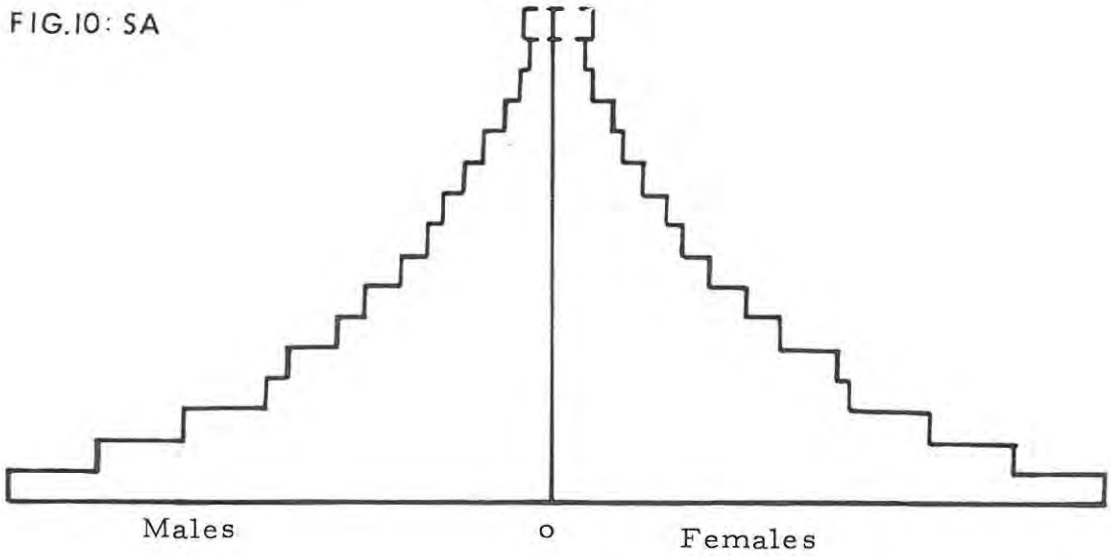


FIG.11: ML

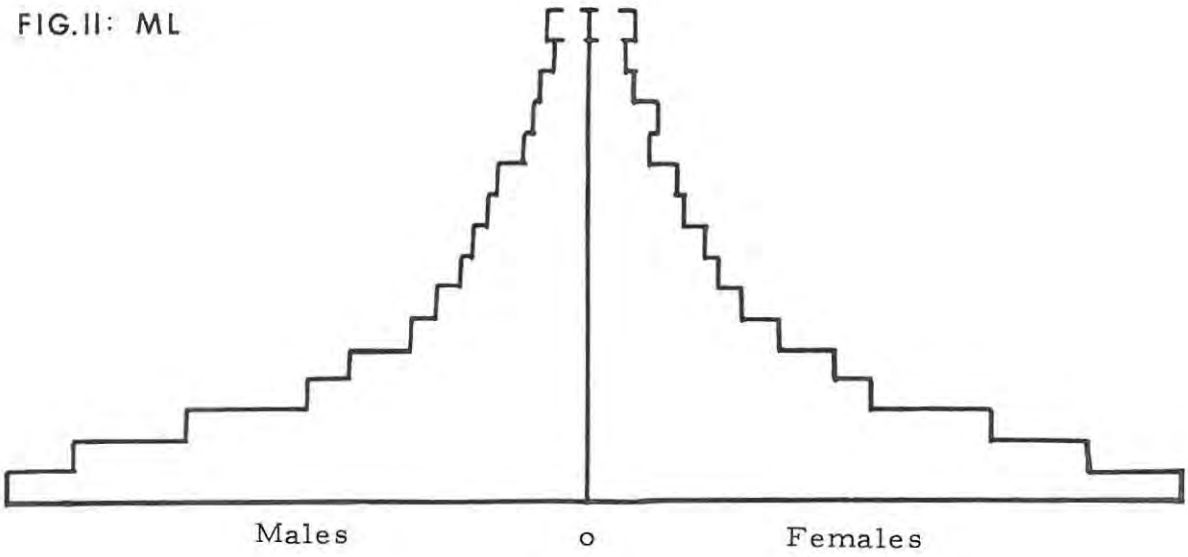
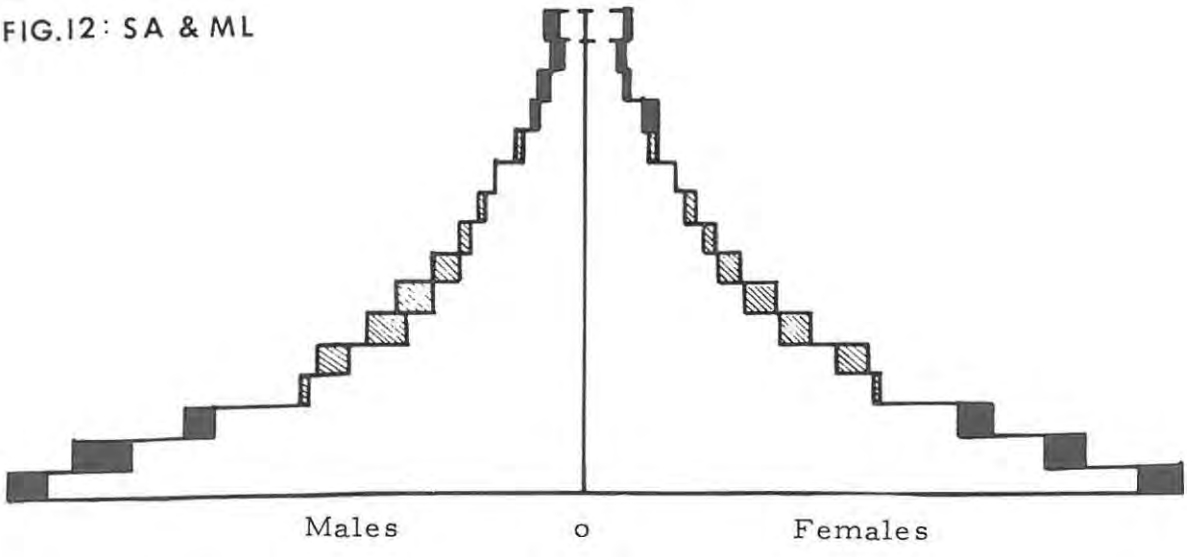


FIG.12: SA & ML



COLOUREDS

FIG. 13: SR I

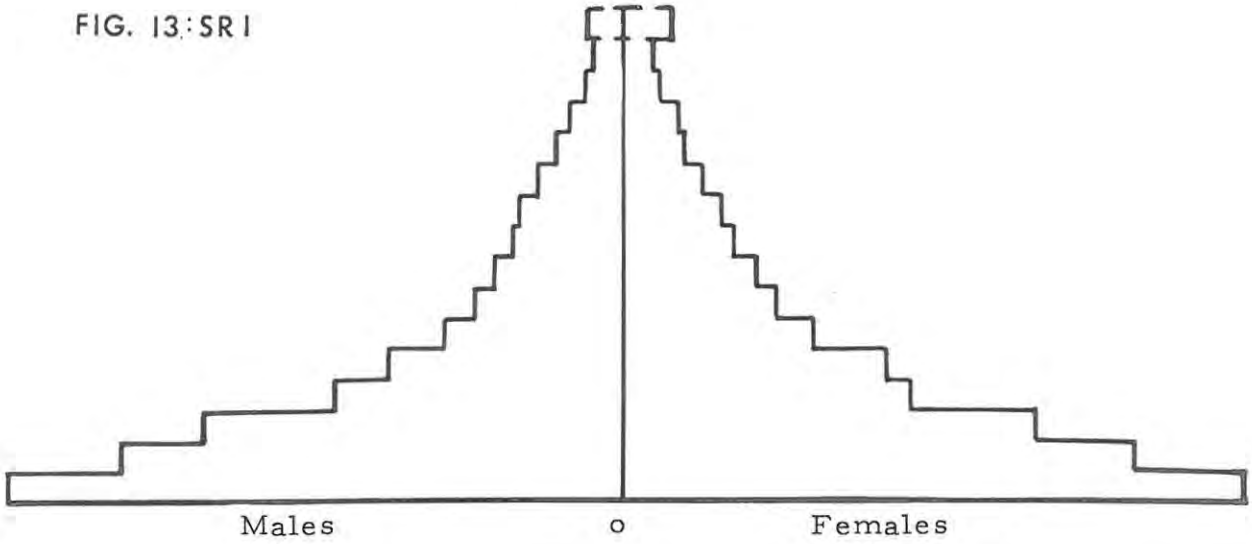


FIG. 14: SR II

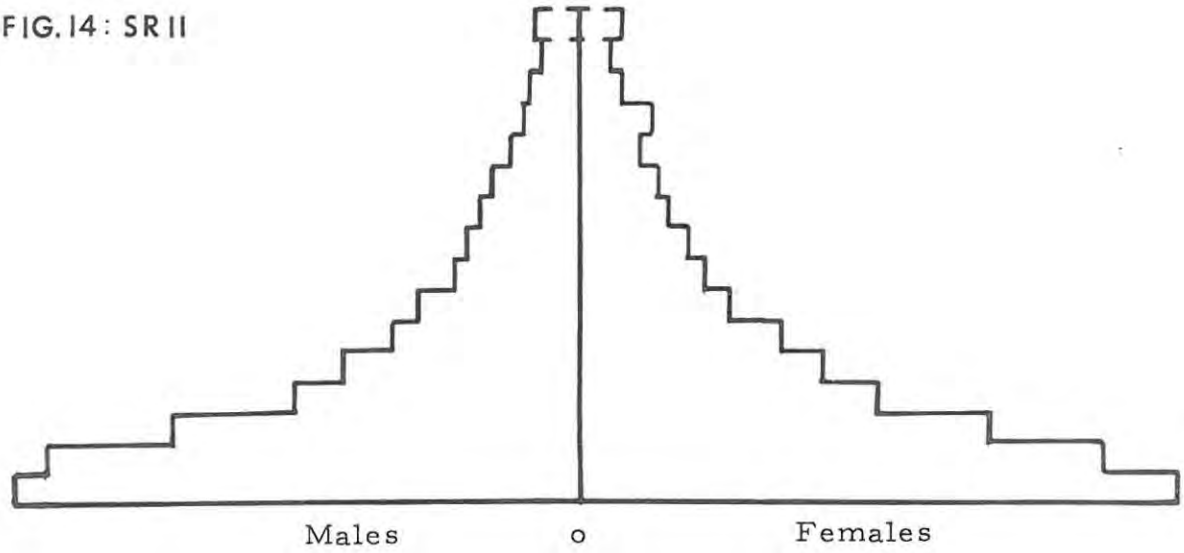


FIG. 15: SR III

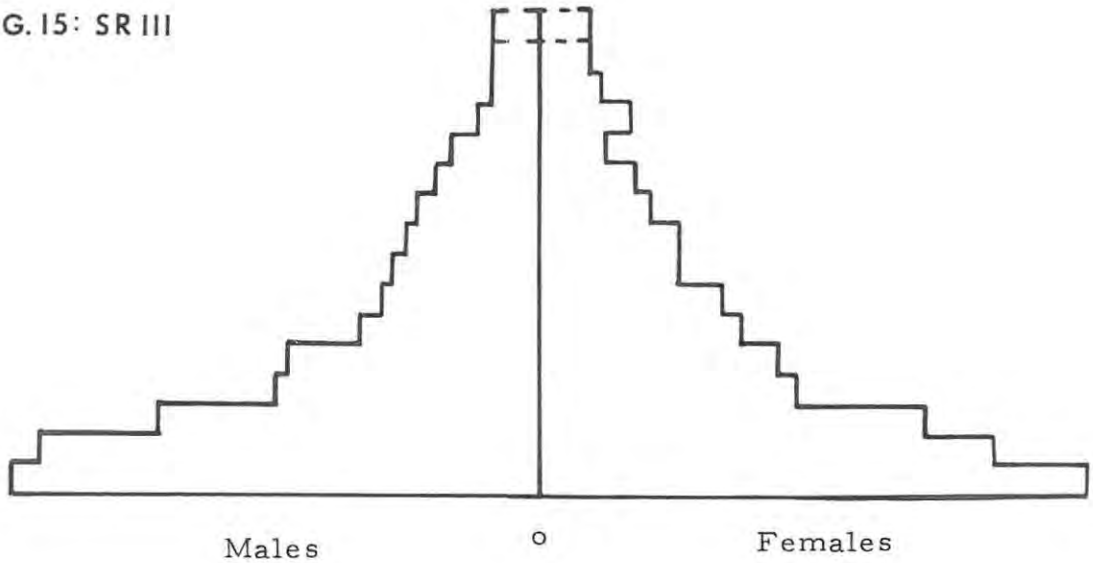


TABLE 19: COLOURED - AGE GROUPS AND DEPENDENCY RATIO - 1960

	South Africa	Midlands	Sub-Region I	Sub-Region II	Sub-Region III
Age Group (Per Cent)					
0 - 14	45.1	49.0	50.3	49.5	45.6
15 - 64	51.7	46.9	46.1	46.5	49.4
65+	3.2	4.1	3.6	4.0	5.0
Dependency Ratio:					
0-14+65+/15-64	93.4	113.2	116.9	115.1	102.4
0-14/15-64	87.2	104.5	109.1	106.5	92.3
65+/15-64	6.2	8.7	7.8	8.6	10.1

The overall Midlands dependency ratio in 1960 was 113.2, of which the group 0-14 years accounted for 104.5 and the group 65+ years for 8.7. The group of potential producers in the age bracket 15-64 years formed 46.9 and 51.7 per cent of the Midlands and South African populations, respectively.

Of the three subregions, Subregion III showed the greatest deviation from the general regional situation. Although it had a comparatively large proportion of its population in the working ages, the burden of older dependants was also greater there than in the other two subregions.

The overall dependency ratios for the Coloured population were considerably higher than the corresponding White figures. The decisive factor was obviously the youthfulness of the Coloureds, as the burden of older dependants was much greater in the White population.

The younger adults in the age bracket 20-44 years, considered to be especially prone to migration, formed 27.3 and 31.7 per cent of the regional and national Coloured population, respectively, all subregional values being lower than the national average figure. No age group diminished in size during the period 1946-60 unlike the case with the White population of the Midlands region.

IV Bantu Population:

(a) Sex Ratio:

In 1960 South African overall masculinity ratio was 101.7 males per 100 Bantu females. In view of the fact that masculinity ratios were 99.0 for age group 0-14 and 105.2 for age group 15-64 years, there is a strong presumption that the preponderance of males in the latter case is largely the result of adult male immigration from other African countries. The Midlands sex ratios on the other hand suggest some male-biased out-migration from the region. The overall

regional ratio was 90.4 males per 100 females. The corresponding values for the age groups 0 - 14 and 15 - 64 years were 100.0 and 82.2, respectively, the latt figure being too low for a population closed to migration. For the highest age group 65+ the respective national and regional figures were 73.7 and 90.5 males per 100 females.

TABLE 20: Bantu - Masculinity Ratio 1960 - Males per 100 Females:

Age Group	South Africa	Midlands	Subregion I	Subregion II	Subregion III
All Ages	101.7	90.4	97.8	93.0	88.6
0 - 14	99.0	100.0	94.6	98.0	100.8
15 - 64	105.2	82.2	102.1	79.6	76.8
65+	73.7	90.5	95.7	94.4	87.0

Significant subregional sex differentials were encountered: Subregion I had the highest overall masculinity ratio (97.8) and showed the comparatively high ratio of 102.1 males per 100 females in the age bracket 15-64 years. The other two subregions recorded such low masculinity ratios for the same age group that a substantial net out-migration of male workers seems to be indicated.

(b) Age Structure: (1) Median Age:

The 1960 Bantu median ages in individual Midlands districts varied within the comparatively narrow range of 7.3 years - from 11.5 years in Graaff-Reinet to 18.8 years in Murraysburg. Even these two figures were rather exceptional in the regional context, where most median values tended to cluster closely around the average Midlands figure of 15.1 years. This is identical with the Coloured regional median and a good deal lower than the 1960 national Bantu figure of 19.1 years.

As with the Coloureds, there is no evidence that the Bantu population has been subject to any demographic aging.[79] The comparatively higher Bantu median value is rather attributable to the presence of foreign and foreign-born persons.[80] Even taking the latter into account, there are some signs of juvenescence, as the national median age for all enumerated Bantu was 20.1 years in 1946 and 20.0 in 1951. There are unfortunately no comparable Midlands data available, as quinquennial age-specific Bantu data on a magisterial district basis were not published before the census of 1960. Calculated on the basis of decennial age groups, the Midlands Bantu showed a median age of 16.4 years for 1951, which also suggests some juvenescence between 1951 and 1960, but as this is a linearly interpolated value falling into the broad age group 10-19 years, it is not quite appropriate for purposes of comparison with quinquennial calculations.

Seen against the background of the demographic cycle, the Bantu population may still be expected to undergo some considerable future juvenescence.

TABLE 21: Bantu - Median Age (Years)

Geographical Unit	1960
Aberdeen	16.4
Graaff-Reinet	11.5
Jansenville	14.9
Murraysburg	18.8
Steytlerville	16.2
SUBREGION I	15.9
Cradock	14.2
Maraisburg	13.7
Middelburg	16.1
Noupoort	15.4
Pearston	13.9
Somerset East	14.3
Steynsburg	13.7
Tarka	14.5
SUBREGION II	14.4
Adelaide	13.8
Albany	15.7
Alexandria	14.2
Bathurst	16.3
Bedford	13.8
Fort Beaufort	17.6
Stockenström	14.4
Victoria East	14.5
SUBREGION III	15.2
CAPE MIDLANDS	15.1
SOUTH AFRICA	19.1

(b) Age Structure: (2) Population Pyramid:

The pyramids representing the South African and Midlands Bantu populations in 1960 appear on page 62 in Figures 16 and 17, respectively, with the two pyramids being brought together in Figure 18. As in previous comparisons, striped areas show Midlands deficiencies and black areas Midlands surpluses vis-à-vis the national population. Figures 19, 20 and 21 on page 63 are the subregional Bantu pyramids.

BANTU

FIG.16: SA

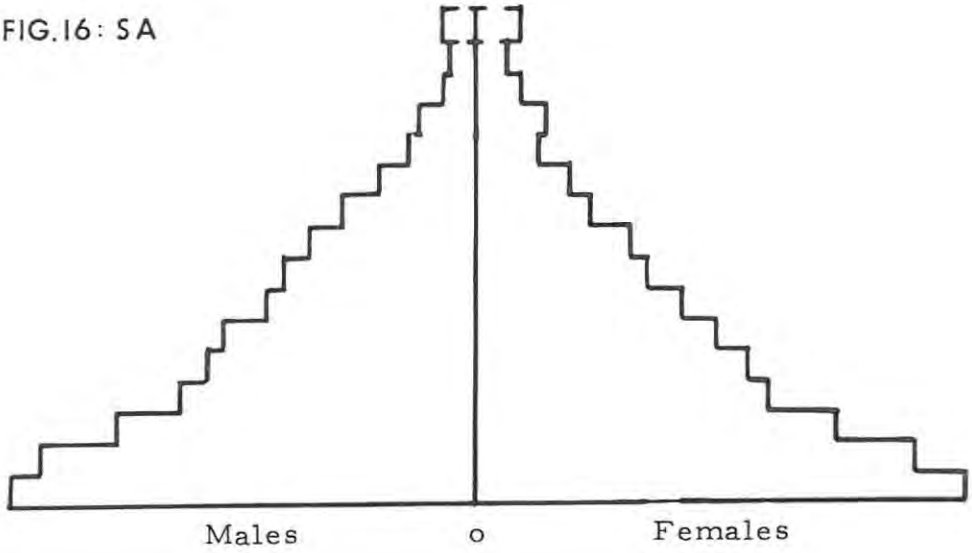


FIG.17: ML

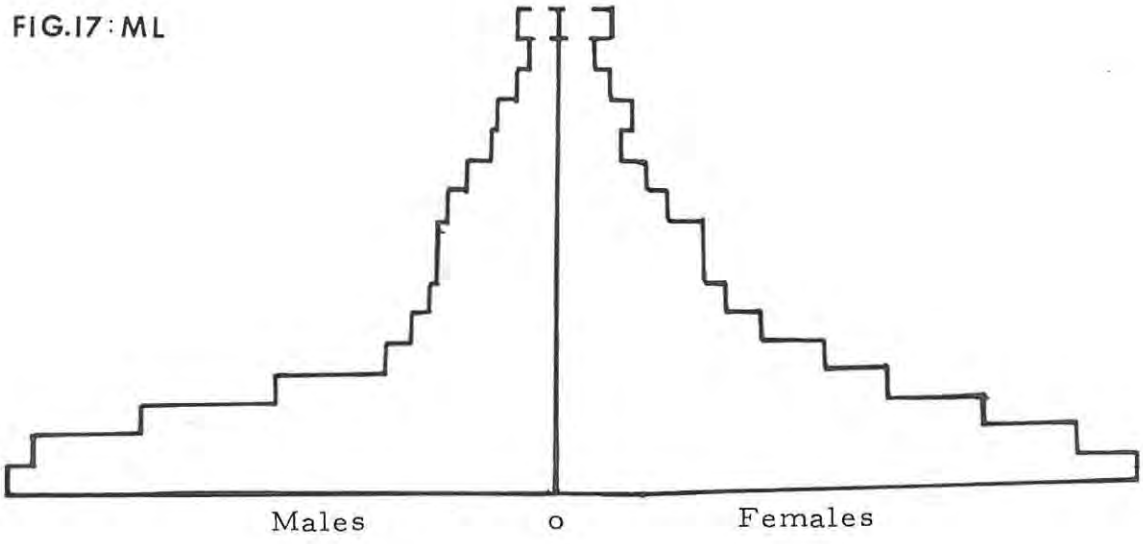


FIG.18: SA & ML

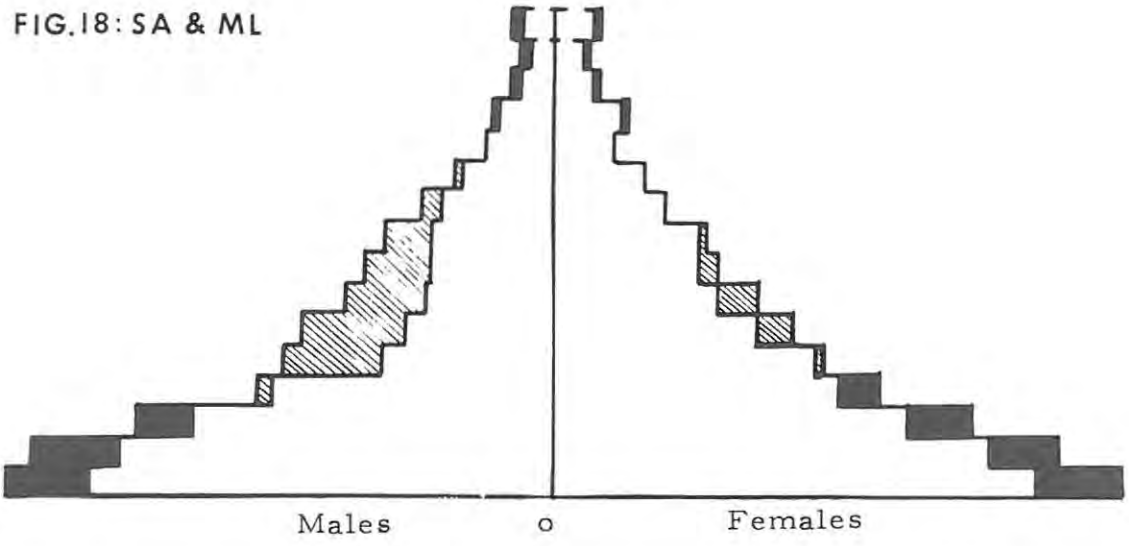


FIG. 19 : SR I

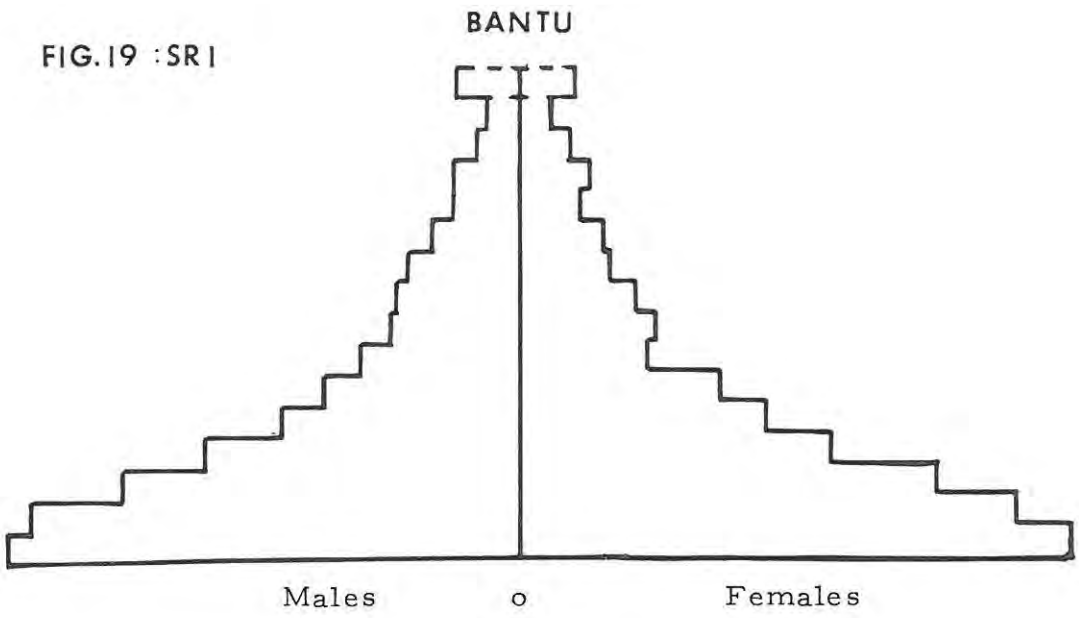


FIG. 20: SR II

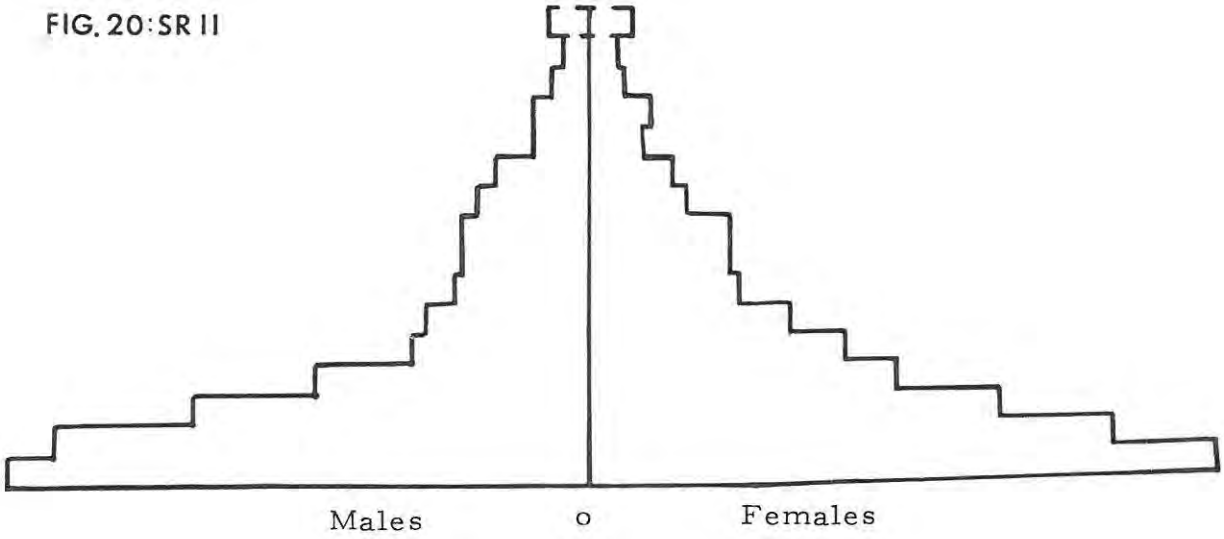
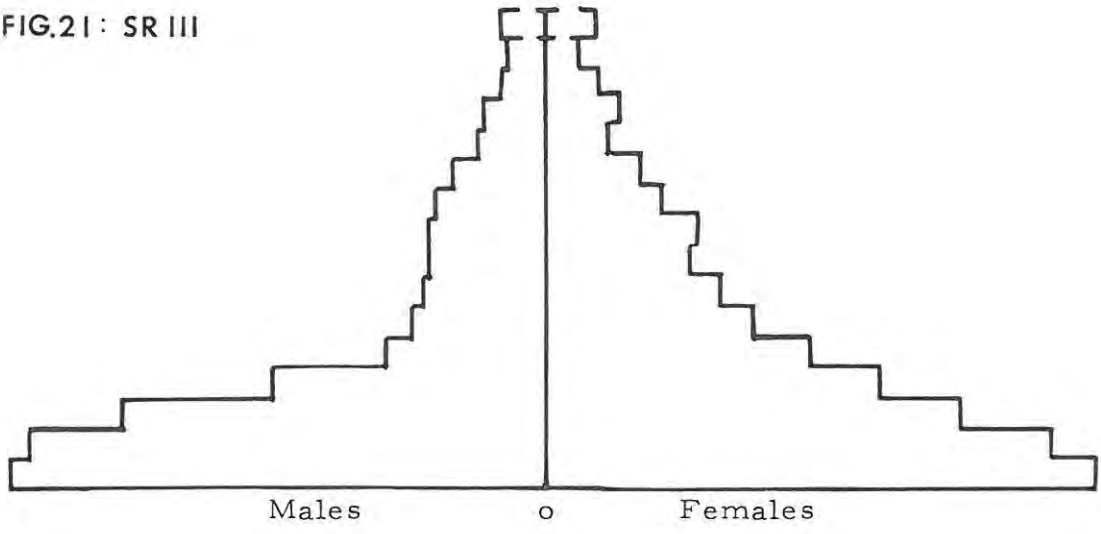


FIG. 21 : SR III



The main difference between the regional and national population pyramids are the following: The regional figure is comparatively broader at the base, the relativ surplus extending over the male ages 0-14 and the female ages 0-19. Then follows a regional deficiency in the central portions of the pyramid which is especially prominent in the case of the males. At high ages there is again a small Midlands surplus for both males and females. On the whole the Midlands Bantu pyramid corresponds more closely with that for the Midlands Coloureds than with the national Bantu pyramid.

The most significant subregional feature is that the male indentation in the broad middle section is rather more pronounced in Subregions II and III than in Subregion I. This suggests that Bantu males in working ages may have a greater propensity to leave areas where they have been established for some time than those where they have settled more recently. (It was seen in the previous chapter that the Bantu have been historically concentrated in the eastern parts of the Midlands, but are relative newcomers in the western parts of the region.) As the structure of a population pyramid is the outcome of demographic trends extending back over some 100 years, the 1960 Midlands Bantu pyramid has to some extent been shaped by migration both into and out of the region.

A minor point which calls for comment is the relative female concentration in the age group 60-64 years. This occurs in both the national and regional Bantu populations, and was also apparent in the Coloured Midlands population. The most probable explanation for this would appear to be an overstatement of age, as female persons become eligible for old age pension at the age of 60 years.

(b) Age Structure: (3) Dependency Ratio:

TABLE 22: BANTU - AGE GROUPS AND DEPENDENCY RATIO - 1960

	South Africa	Midlands	Sub-Region I	Sub-Region II	Sub-Region III
Age Group (Per Cent)					
0 - 14	41.4	48.8	47.1	50.3	48.4
15 - 64	55.3	47.2	48.4	46.2	47.3
65+	3.3	4.0	4.5	3.5	4.3
Dependency Ratio:					
0-14+65+/15-64	80.8	111.9	106.6	116.5	111.4
0-14/15-64	74.9	103.4	97.3	108.9	102.3
65+/15-64	5.9	8.5	9.3	7.6	9.1

The total 1960 dependency ratio for South Africa's Bantu population was rather lower (80.8) than in the case of the Coloureds (93.4). The reason for this is the relatively greater Coloured concentration in the age group 0-14 years, as the

proportion of older dependants aged 65+ years did not differ significantly between these two population groups.

In the Midlands region there were however no great differences between the burden of dependency on the productive members (15-64 years) of the Bantu and Coloured populations. The subregional differences for the Bantu do not significantly modify the general regional picture.

The migration prone age group of 20-44 years formed 26.4 per cent of the Midlands Bantu population, compared with 34.5 per cent on the national scale. No fundamental subregional deviations were apparent, although persons aged 20-44 were more prominent (27.4 per cent) in Subregion I than in the other two subregions.

As far as can be ascertained from imperfect data, it does not appear that any Midlands Bantu age group diminished in size between 1951 and 1960. Although out-migration has unmistakeably been taking place, its impact has not been as drastic as in the case of the White.

V. Accuracy of the Published Data

Because of the fundamental importance of the sex-age data in demographic analysis, it is desirable to have at least an approximate indication of the reliability of the published statistics. Sex is probably the most accurate of all the characteristics reported in a population census. Apart from sex-selective underenumeration, the observed male/female ratios in different age groups are influenced by the respective proportions of the two sexes at birth, differential mortality and sex-selective migration. Apart from the failure to report age at all, mistakes concerning the age distribution of a population results from misstatements of age and the incomplete enumeration of certain age groups.

Various methods exist for assessing the accuracy of a single-year age distribution, but seeing that regional age-specific data are not readily available on this basis, it was decided in the present case to make use of the "United Nations Secretariat Method", which has been developed for the purpose of testing quinquennially or decennially grouped data - in the present case the former.[81] This method is also considered to give a more realistic reflection of the general accuracy of age statistics than the tests based on a single-year distribution. The United Nations Secretarial Method is applied to persons up to the age of 70 years and yields a compound index or "joint score" which is derived as follows: The number of males per 100 females is calculated for each quinquennial age group, after which the difference between successive groups are added and averaged, irrespective of sign. This gives the "sex ratio score" of the population concerned.

The age ratio pertaining to a given quinquennial group (males and females taken separately) is defined as the number of persons of that age group per 100 of the mean numbers in the two adjoining age groups. The deviations of the age ratios from 100 are then added and averaged, again irrespective of sign, which gives the "age ratio score" of the population.

A joint sex-age ratio score is then obtained by adding three times the sex score to the male and female age scores. "The resulting index is not very exact and should be regarded as an 'order of magnitude' rather than a precise measurement".[82] The larger the index, the greater is the surmised degree of inaccuracy of the published sex-age statistics. The method is more suited for comparing the apparent reliability of data pertaining to different populations at the same date, rather than the accuracy of the data pertaining to a given population at different dates - another reason for the selection of this test in the present case.

A minimal index value is obtained when the method is applied to the distribution of a stationary population, that is, the L_x column of a life table. For the South African White stationary population in 1950-52 a sex ratio score of 1.6 and age ratio scores of 0.6 and 0.5 for males and females, respectively, were obtained, thus giving a joint score of 5.9. A similar figure would be derived from the application of the method to any stationary population.

A relatively large index may, however, also reflect the influence of certain real disturbances in addition to the inaccuracy of the reported statistics. The regularity of sex and age ratios may be disturbed by changes in fertility and mortality trends, as well as by migration. Relatively large migrations over a short period of time are bound to affect certain sex-age groups to a considerable extent, but if migration takes place continuously over a long period without abrupt changes in volume or a pronounced selectiveness by sex, its effects on the sex and age ratios will be less noticeable.

Another limitation of the method results from the small absolute numbers of certain populations, where irregular ratios at some ages may reflect a real state of distribution rather than statistical inaccuracy. To compensate for such smallness of numbers, the United Secretarait Method allows for a number of points to be subtracted from the joint scores of populations ranging between one million and 4,400 persons.[83]

Table 23 (See p. 67) shows the derivation of the joint scores for the White population of South Africa and the Cape Midlands on the basis of the 1960 census statistics. Irregularities are rather greater in the case of the latter; the national and regional index numbers being 13.0 and 28.5 respectively. Owing to the smallness of the Midlands populations, 11.0 points may be subtracted from the regional index, thus giving a roughly comparable joint score of 17.5. A joint score of less than 20 points has been described as reflecting "at least tolerably accurate data".[84] The national index of 13.0 could therefore be regarded to represent a very satisfactory set of sex-age statistics, taking into account that the distribution is to some extent influenced by (international) migration. The adjusted regional figure exceeds the national one by 4.5 points, and here the discrepancy would appear to suggest real disturbances resulting from a relatively greater exposure to (internal) migration and the presence of youthful temporary residents rather than less accurate regional data.

It appears from Table 24 (See p. 68) that the national and regional joint scores for the Coloured population in 1960 were 17.6 and 36.0, respectively, the latter figure being lowered to 27.0 when adjusted (by 9.0 points) for the smallness of the regional numbers. Some of the observed irregularities may be ascribed to past disturbances such as the influenza epidemic of 1918, but seeing that the national Coloured population has been far less exposed to (international) migration than its White counterpart, it may be concluded that the Coloured statistics are less reliable than those for the White population. After adjusting the regional Coloured index for small numbers, there remains a difference of 9.4 points between the regional and national joint scores. Here it is difficult to decide whether the discrepancy should be ascribed to greater regional inaccuracy or the net out-migration of Coloured persons from the Midlands, which may have been more sporadic than that of the Whites of the region. Elements of both may be present, but it should also be noted that the regional joint score was significantly inflated by irregular ratios in especially the higher age brackets. The 9-point adjustment for irregular distribution arising from small numbers may thus have been unrealistically low in the present case.

The national and regional Bantu joint scores in 1960 were 34.5 and 43.3, respectively, the latter figure declining (by 4.0 points) to 39.3 when allowance is made for small numbers. The resulting relatively narrow margin of 4.8 points

TABLE 23: WHITES-CALCULATION OF JOINT SCORE - 1960

SOUTH AFRICA							CAPE MIDLANDS					
Age Group	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100
0- 4	103.8						105.3					
5- 9	103.8	0	98.2	-1.8	98.3	-1.7	105.1	-0.2	97.6	-2.4	100.1	+0.1
10-14	104.0	+0.2	105.3	+5.3	104.6	+4.6	110.5	+5.4	102.2	+2.2	98.4	-1.6
15-19	102.8	-1.2	98.9	-1.1	99.3	-0.7	107.6	-2.9	116.2	+16.2	119.0	-19.0
20-24	102.2	-0.6	97.7	-2.3	98.0	-2.0	109.7	+2.1	89.5	-10.5	118.1	+18.1
25-29	102.0	-0.2	94.2	-5.8	93.7	-6.3	97.3	-12.4	88.6	-11.4	96.1	-3.9
30-34	100.6	-1.4	101.7	+1.7	102.0	+2.0	100.4	+3.1	101.3	+1.3	96.1	-3.9
35-39	99.6	-1.0	100.3	+0.3	100.6	+0.6	93.1	-7.3	98.9	-1.1	103.5	+3.5
40-44	99.1	-0.5	97.2	-2.8	97.6	-2.4	94.4	+1.3	98.5	-1.5	94.0	-6.0
45-49	99.4	+0.3	95.4	-4.6	104.4	+4.4	87.4	7.0	99.7	-0.3	106.9	+6.9
50-54	98.8	-0.6	109.7	+9.7	109.1	+9.1	93.0	+5.6	109.8	+9.8	107.4	+7.4
55-59	96.5	-2.3	94.0	-6.0	91.7	-8.3	95.4	+2.4	101.6	+1.6	91.5	-8.5
60-64	86.3	-10.2	92.8	-7.2	97.2	-2.3	76.9	-18.5	90.2	-9.8	102.7	+2.7
65-69	81.7	-4.6	102.3	+2.3	102.7	+2.7	78.4	+1.5	104.6	+4.6	105.0	+5.0
TOTAL		23.1		50.9		47.6		69.7		72.7		86.6
MEAN		1.8		3.9		3.7		5.4		5.6		6.7
INDEX				13.0						28.5		
WITH ADJUSTMENT				13.0						17.5		

TABLE 24: COLOUREDS - CALCULATION OF JOINT SCORE - 1960

SOUTH AFRICA							CAPE MIDLANDS					
Age Group	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100
0- 4	99.3	-	-	-	-	-	97.4	-	-	-	-	-
5- 9	100.6	+1.3	100.1	+0.1	99.1	-0.9	102.4	+5.0	104.6	+4.6	100.2	+0.2
10-14	99.9	-0.7	99.5	-0.5	99.3	-0.7	99.4	-3.0	101.5	+1.5	102.7	+2.7
15-19	98.3	-1.6	90.4	-9.6	90.3	-9.3	97.3	-2.1	87.3	-12.7	87.4	-12.6
20-24	95.7	-2.6	104.7	+4.7	106.4	+6.4	94.3	-3.0	103.2	+3.2	103.8	+3.8
25-29	95.9	+0.2	96.6	-3.4	98.1	-1.9	91.3	-3.0	91.8	-8.2	95.4	-4.6
30-34	99.9	+4.2	100.3	+0.3	99.4	-0.6	95.8	+4.5	100.0	-	97.6	-2.4
35-39	103.4	+3.5	97.7	-2.3	95.4	-4.6	97.0	+1.2	96.1	-3.9	95.9	-4.1
40-44	102.4	-1.0	96.9	-3.1	94.2	-5.8	98.2	+1.2	98.2	-1.8	101.6	+1.6
45-49	101.6	-0.8	101.9	+1.9	103.5	+3.5	108.0	+9.8	102.1	+2.9	97.2	+2.8
50-54	104.4	+2.8	99.4	-0.6	98.4	-1.6	107.6	-0.4	102.1	+2.1	104.8	+4.8
55-59	106.5	+2.1	102.1	+2.1	93.7	-6.3	114.6	+7.0	96.6	-3.4	80.3	-19.7
60-64	87.1	-19.4	88.6	-11.4	103.1	+3.1	80.6	-34.0	94.8	-5.2	132.5	+32.5
65-69	92.3	+4.8	99.4	-0.6	92.9	-7.1	109.0	+28.4	101.8	+1.8	82.6	-17.4
TOTAL		45.0		40.6		51.8		102.6		51.3		109.2
MEAN		3.5		3.1		4.0		7.9		3.9		8.4
INDEX				17.6						36.0		
WITH ADJUSTMENT				17.6						27.0		

TABLE 25: BANTU - CALCULATION OF JOINT SCORE - 1960

Age Group	SOUTH AFRICA						CAPE MIDLANDS					
	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100	Sex Ratio	Successive Difference	Male Age Ratio	Deviation from 100	Female Age Ratio	Deviation from 100
0- 4	96.6	-	-	-	-	-	96.2	-	-	-	-	-
5- 9	100.5	+3.9	105.1	+5.1	103.1	+3.1	103.0	+6.8	108.6	+8.6	103.2	+3.2
10-14	101.5	+1.0	99.1	-0.9	101.3	+1.3	100.3	-2.7	103.8	+3.8	99.4	-0.6
15-19	102.1	+0.6	93.2	-6.8	92.1	-7.9	85.1	-15.2	94.5	-5.4	96.5	-4.5
20-24	100.2	-1.9	98.5	-1.5	102.1	+2.1	65.5	-19.6	80.3	-19.7	98.8	-1.2
25-29	106.2	+6.0	105.8	+5.8	101.4	+1.4	73.4	+7.9	99.9	-0.1	96.0	-4.0
30-34	103.8	-2.4	94.7	-5.3	99.5	-0.5	78.8	+5.4	94.2	-5.8	92.7	-7.3
35-39	113.2	+9.4	101.6	+1.6	94.4	-5.6	83.2	+4.4	97.6	-2.4	94.6	-5.4
40-44	107.2	-6.0	100.3	+0.3	108.9	+8.9	82.6	-0.6	105.8	+5.8	115.1	+15.1
45-49	121.1	+13.9	104.9	+4.9	91.6	-8.4	98.8	+16.2	101.7	+1.7	90.4	-9.6
50-54	103.2	-17.9	93.8	-6.2	106.0	+6.0	95.9	-2.9	104.4	+4.4	110.0	+10.0
55-59	108.8	+5.6	92.4	-7.6	81.1	-18.9	104.5	+8.6	86.2	-13.8	75.3	-24.7
60-64	84.3	-24.5	104.9	+4.9	123.5	+23.5	86.1	-18.4	116.5	+16.5	129.3	+29.3
65-69	83.8	-0.5	86.3	-13.7	84.7	-15.3	83.5	-2.6	85.1	-14.9	90.0	-10.0
TOTAL		93.6		64.6		102.9		111.3		102.9		124.9
MEAN		7.2		5.0		7.9		8.6		7.9		9.6
INDEX				34.5						43.3		
WITH ADJUSTMENT				34.5						39.3		

may again be largely attributed to net out-migration from the region which appears to have shown a strong male bias and may also have been somewhat sporadic in nature, although the national Bantu figures have also been subject to irregularities caused by immigration. Joint scores ranging between 20 and 40 points are considered to reflect data "greatly in error",[85] which would seem to be a reasonably apt description of the observed composition of both the national and regional Bantu population statistics. Irregularities in the higher age brackets have again substantially inflated both the national and regional joint scores.

The observed order of magnitude of the joint sex-age scores for the three population groups therefore suggests that the White data for 1960 may be regarded as sufficiently accurate, those for Coloureds somewhat less reliable, while the reported Bantu statistics leave much to be desired.

The United Nations Secretariat Method has been subjected to the criticism that it "shows up to some disadvantage countries experiencing increasing trend of births and improving heavy mortality,[86] which is typical of populations finding themselves in Phase 2 of the demographic cycle. This state of affairs may therefore also have served to prejudice the Coloured and Bantu joint scores to a certain degree. Although comparisons of statistical accuracy on the basis of this index may be considered valid for certain broad ranges, no great significance should be attached to relatively small variations in its value.

In view of the fact that all three population groups have been subject to internal migration of varying scope and regularity, it is not feasible to conclude from the results of the test that the regional sex-age data for 1960 should be regarded as materially less accurate than the national census returns.

VI Summary

The White, Coloured and Bantu populations in South Africa as well as the Cape Midlands region find themselves at different stages of demographic evolution. While aging is advancing in the case of the Whites, the Coloureds and Bantu appear to be undergoing a process of juvenescence.

The age structure of the Midlands White population differs considerably among individual magisterial districts, comparatively low median ages being observed in districts with educational and/or training institutions which serve to attract young persons of pre-working ages. Variations in median age values are of considerably lesser importance among the Coloured and Bantu populations of the region.

All three regional population groups have experienced a clear net out-migration of persons in the working ages with some male preponderance particularly in the ca of the Bantu. This process has intensified White aging both at the base and the ape of the population pyramid, while the base of the Coloured and Bantu regional pyrami is appreciably broader than on the comparative national level. The structure of the Midlands White population is regressive, while the regional Coloured and Bantu populations show a progressive age composition.

The burden of persons in the dependent age groups on those in the productive ages is comparatively greater for all three ethnic groups on the regional than the national level. In the case of the White population this is the outcome of a comparatively high proportion of older dependents, which the large proportion of younger dependants have raised the Coloured and Bantu regional dependency ratio above their respective national averages.

A test for the accuracy of the quinquennial sex-age data returned for 1960 showed that the statistics for Whites appear sufficiently reliable, those for Coloure

somewhat less so, while the quality of the Bantu data is unsatisfactory. It could not be definitely established that the regional statistics are less accurate than the national ones, mainly because of the disturbing effects of migration on the former.

CHAPTER III

MORTALITY, FERTILITY AND RESIDUAL MIGRATION

I. General Background

The main purpose of this chapter is to trace the mortality and fertility conditions in the Midlands region from 1946 via 1951 to 1960, and to compare the regional mortality and fertility conditions to those prevailing in the country as a whole during this period. Such a study also yields some information about the scope and nature of the residual migration that the region has experienced. The feasibility and usefulness of an analysis of this kind depend on both the availability of suitable basic data and their degree of accuracy.

To gain an adequate insight into the level and trend of mortality and fertility, which together determine the natural increase of a population, the statistical reports of these two vital events should contain a minimum number of basic items. The United Nations Handbook of Vital Statistics Methods lists 8 and 10 such items of "first priority rating" for the registration of deaths and births, respectively, of which only three items, in either case, are available on a regional base in South Africa. (Deaths: year of occurrence, place of occurrence, place of usual residence of deceased. Births: year of occurrence, place of occurrence, place of usual residence of mother.) The published information for the direct compilation of regional mortality and fertility measures may therefore be deemed as severely limited. With regard to the quality of the available data, the registration of vital events for the White population group may be regarded as complete and of sufficient accuracy, while the data for the Coloured population group appear somew unsatisfactory, mainly because of incomplete coverage of birth registration. No vi statistics for the Bantu are at present available in published form, either nationall or regionally.

Mortality: The measurement of mortality has been advanced particularly by the compilation and use of life tables, which supply information pertaining to a number of other demographic topics as well. The lack of the necessary sex-age-specific mortality rates precludes the direct compilation of regional life tables. Indirect compilation, by employing some seemingly fitting standardisation procedure, would be feasible in principle, although in the present context certain precautions would b necessary in order to deal with the distorting effects of small absolute numbers. It will be considered later in this chapter whether such indirect compilation of region life tables would be warranted in terms of the additional information which they say may be expected to yield.

The only measure of mortality which can indeed be directly calculated from published regional data is the crude death rate, the simplest and most widely used measure of the frequency of mortality in a population. As the ratio of total deaths to total population, it is an indiscriminate and therefore unsatisfactory index of the true level of mortality, seeing that different subgroups comprising the total population have mortality rates which may differ very widely. It is an especially inadequate measure of the trend of mortality when there have been intertemporal changes in the relative numerical importance of such subgroups with distinctive mortality patterns.

A more precise indication of mortality requires data which are not published on the regional level in South Africa. It is, however, possible to obtain more detailed information by means of standardisation, where certain properties of a standard population are imputed to the regional population. In the present case

an "indirect" standardisation procedure will be followed, where the age-specific mortality schedules of the White and Coloured national populations are applied to their regional counterparts. It will then be reasoned that the national age-specific mortality rates appear to be sufficiently close approximations of mortality conditions in the Midlands region as well. Where more detailed mortality measures are required for further regional analysis, as in the calculation of the net reproduction rate and in population projection, use will therefore be made of national life table data.

Fertility: In the case of fertility it is possible to calculate at least two separate measures directly from published regional statistics. These are (1) the crude birth rate and (2) the general fertility rate, both employing the same (total) number of births registered during the period of observation, but relating this number to different base populations. Like the crude death rate, the crude birth rate is the simplest and most widely used measure of fertility conditions. It likewise ignores the sex and age composition of the population, and can therefore serve as no more than a preliminary indication of the level and trend of fertility. In the case of the general fertility rate, fertility is related to a specific section of the total population, namely, female persons of childbearing age, who in this study are considered to fall between the "conventional" ages of 15 and 49 years. Thus the general fertility rate eliminates the influence of the male population component and also that of the females who fall outside the defined reproductive age limits. But it continues to ignore the potential consequences of the age distribution pattern of the females within the childbearing age bracket as a whole.

Three further measures pertaining to fertility, obtained by means of standardisation procedures, are calculated for the White and Coloured regional populations, namely, (3) the total fertility rate, (4) the gross reproduction rate, and (5) the net reproduction rate. The last of these is actually a measure of potential natural increase rather than of fertility taken by itself.

Residual Migration: From the available census and vital registration data it is possible to make an indirect estimate of net migration for the White and Coloured regional populations during the intercensal periods 1946-51 and 1951-60 by means of the wellknown "balancing equation"

$$I - E = P_{t+n} - P_t + B - D.$$ [87]

Another indirect method for estimating net migration is provided by the extrapolation and/or retropolation of census figures by sex and age, by means of appropriate survival factors. This procedure may, in principle, also be applied to the Bantu population.

Whenever use has been made of the actual numbers of births and deaths, those registered according to the "place of residence" have been preferred to those registered according to the "place of birth/death", seeing that the former are not subject to the bias which the concentration of medical facilities in certain localities may tend to introduce.[88] As such they are therefore more appropriate for the purpose of regional analysis. In all cases the regional census population, although enumerated on a de facto basis, has, for want of a more suitable alternative, also been taken to represent the de jure population. (With the exception of the adjustments set out in the Appendix to Chapter I.)

The space devoted to the discussion of White demographic conditions exceeds that allotted to the Coloured and Bantu population groups. This is so partly because certain technical matters are not repeated, once they have been set out in the context

of the demography of the White population group. Moreover, although the relevant published data for Whites and Coloureds are virtually identical in their formal coverage, the greater accuracy of the statistics for the White population makes possible certain more detailed calculations which are not feasible for the Coloured population. The section dealing with Bantu demography is comparatively short mainly because of the deficiency of basic data.

II Whites

(a) Mortality:

The crude and standardised death rates: For the calculation of the crude death rate the enumerated census population was taken as the base population, the number of deaths related to it being the annual mean of all those registered during, immediately preceding and immediately following the census year. In the case of the Midlands region the selected "place of residence" data were persistenly somewha higher than those registered by place of occurrence, thus suggesting that, on balance medical care had been sought outside the Midlands region. The crude and standardised death rates below are expressed per 1,000 persons of the total population.

TABLE 26: WHITES - CRUDE AND STANDARDISED DEATH RATES (Per Thousand)

Years	Crude Death Rate		Standardised Death Rate
	Midlands	South Africa	Midlands
1945 - 47	10.8	8.9	8.4
1950 - 52	11.2	8.6	8.5
1959 - 61	11.5	8.7	8.8

The level of mortality, as measured by the crude rates in Table 26, appears significantly higher in the Midlands region than in South Africa as a whole for the three census years. There also appears to be a slightly rising trend in the Midlands rate, while there is no clear trend for the national rate to rise or fall during the tabulated period. The observed regional trend is the outcome of a population which has declined in absolute numbers, while the absolute number of registered deaths has not shown an either clearly rising or falling trend. The three national rates, on the other hand, are the outcome of rising absolute numbers for both total population and registered deaths.

In the light of what has preceded, there is a strong presumption that the comparatively higher level of regional crude mortality is mainly the outcome of a relatively greater concentration of population numbers in the higher age groups, that is, aging at the apex of the population pyramid. The rising trend of mortality is, of course, the arithmetic consequence of continued net out-migration from the region.

Table 27 shows the calculation of the age-standardised death rate for the Midlands, by the application of the age-specific death rate schedule of the South African population (the standard population) for 1959-61 (in column II) to the 1960 Midlands census population, subdivided into quinquennial age groups (column III).

TABLE 27 : WHITES - INDIRECT STANDARDISATION OF MIDLANDS DEATH RATE, 1959 - 61

I Age Group	II S. A. Age-Specific Death Rates 1959-61	III Midlands Population 1960	IV Expected Deaths in Midlands
0 - 4	.0074	6,333	47
5 - 9	.0006	6,128	4
10 - 14	.0005	6,072	3
15 - 19	.0010	5,972	6
20 - 24	.0017	4,092	7
25 - 29	.0017	3,419	6
30 - 34	.0021	3,321	7
35 - 39	.0028	3,313	9
40 - 44	.0044	3,225	14
45 - 49	.0064	3,394	22
50 - 54	.0101	3,337	34
55 - 59	.0154	2,753	42
60 - 64	.0235	2,388	56
65 - 69	.0355	2,178	77
70 - 74	.0528	1,766	93
75+	.1139	2,215	252
Unspecified	.0087	423	4
Total	.0087	60,329	683

Total Average Deaths Actually Registered 1959-61:	691
Ratio: Actual Deaths/Expected Deaths	1.0117
Age-Standardised Death Rate)	8.8 per
(Ratio) x (Crude Death Rate of Standard Population)	thousand

In this manner it is possible to calculate the "expected" number of deaths in each quinquennial group of the Midlands population (column IV), that is, the number of deaths that would occur in the region if the age-specific mortality rates obtaining there were identical with those for the country as a whole. (There were in 1960 423 persons not classified by age living in the Midlands region. The "expected" number of deaths in this group was calculated on the basis of the overall national crude death rate of 8.7 per 1,000 persons.) Seeing that the total number of deaths which occurred in the Midlands region during 1959-61 is known, it is possible to obtain the ratio of actual to expected deaths, this being an indication of the degree to which the national age-specific death rates were appropriate to the regional situation. This ratio (based on 691 actual and 683 expected mean deaths for 1959-61) was 1.0117, thus suggesting that the national age-specific mortality-schedule may have been somewhat too low to accurately reflect mortality conditions in the Midlands region. The age-standardised death rate for the region was then

obtained by multiplying the national crude death rate of 8.7 per 1,000 by the above ratio, thus yielding a figure of 8.8 per 1,000 persons of the Midlands population. In the same manner, age-standardised regional death rates of 8.5 and 8.4 per 1,000 were obtained for 1950-52 and 1945-47, respectively (See Table 26).

In the ideal case, the standardisation procedure may be considered to remove the concealed effects of peculiarities in age structure from the regional crude death rate, thus making it comparable with the national crude death rate.[89] Any remaining differences would then have to be explained in terms of other factors leading to differential mortality, such as sex, occupation, income, education, availability of medical services, incidence and severity of diseases, etc. The relatively small deviations of the standardised regional from the crude national death rate (1945-47: 0.6; 1950-52: 0.1; 1959-61: 0.1 per 1,000) may indeed be attributable to such factors. It has, moreover, been found that the indirect method of standardisation is not completely independent of the age distribution within the community, as would be the case with the direct standardisation method.[90] On the whole there seems little reason to doubt that the root cause of the comparatively high (and rising) level of regional crude mortality is indeed a less favourable age structure vis-à-vis the national population, brought about primarily by continued net out-migration from the region.

One is thus persuaded to conclude that the regional peculiarities of age distribution may be taken as the sole significant cause of the observed differences between the two sets of crude mortality rates from a practical point of view, and that the national age-specific mortality schedule should therefore also be a sufficiently close approximation of the regional situation. Where such measures are called for in subsequent analysis, national life table data will consequently also be deemed applicable to the regional population, as the additional information which the indirect compilation of regional life tables may be expected to yield would seem to be of a negligible order.

(b) Fertility:

(1) Crude birth rate: As with the crude death rate, the crude birth rate values below were calculated on the basis of the total census population, that is, as the mean number of all births (by place of residence in the regional case) during the census year and the two adjacent years, expressed per 1,000 members of the population. The number of births for the Midlands region registered on the "place of residence" basis was again persistently higher than the corresponding "place of birth" figure, thus implying that there was a positive balance of Midlands mothers who sought medical care outside the region during confinement.

TABLE 28: WHITES - CRUDE BIRTH RATE (PER THOUSAND)

Years	Midlands	South Africa
1945-47	23.7	26.7
1950-52	22.5	25.0
1959-61	20.5	22.0

Both the regional and national crude birth rate values declined during the tabulated period. In the national case, both population and registered births rose

in absolute numbers, the relatively more rapid rate of population increase causing the crude birth rate to decline. In the regional case, both population and births fell in absolute numbers, the decline in the crude birth rate being the consequence of the population declining at a relatively faster rate than the number of births. The national rate remained at a higher absolute level than the regional one, although the gap between them appeared to narrow with the passage of time.

(2) General fertility rate: As was mentioned previously, crude vital rates tend to conceal important differences which may exist between the structures of different populations. A more significant base for measuring the fertility performance of a population is represented by the females in the potentially childbearing ages 15-49 years. Expressing the total number of births (the same figure as was used in calculating the crude birth rate) per 1,000 members of this subgroup, yields the general fertility rate which may be regarded a somewhat more discriminating index of fertility conditions. It, however, remains a "general" rate in the sense that all births are imputed to the females in the significant age bracket as a whole, without any further distinction between them.

TABLE 29 : WHITES - GENERAL FERTILITY RATE (PER THOUSAND)

Years	Midlands	South Africa
1945-47	96.3	104.5
1950-52	95.5	100.4
1959-61	96.8	102.7

It appears from Table 29 that the observed national rates were again higher than the regional ones, and yet again that the two sets of rates tended to move in sympathy between the tabulated census dates. But in the present case the rates first declined between 1946 and 1951, and then rose between 1951 and 1960. This short term increase in fertility was previously associated with rising economic prosperity. In 1960 the gap which existed between the national and regional general fertility rates was narrower than in 1946, but wider than in 1951.

Mainly because of the effects of migration on the regional population, the general fertility rate, and particularly the crude birth rate, need not by themselves provide a suitable basis of meaningful comparison between regional and national fertility levels. The shortcomings of these measures which do in any case exist on the national level, are simply magnified when dealing with regional data. It is, however, not possible to calculate any more refined fertility measures directly from published regional statistics.

(3) Total fertility rate, gross and net reproduction rates, calculated by standardisation procedures: By means of resorting to standardisation procedures, it is possible to calculate certain more specialised measure of fertility, such as the total fertility rate and the gross and net reproduction rates. As the age composition of the regional population is known, the basic standardisation procedure followed here may again be described as being of an "indirect" nature. That is, the age-specific fertility rate schedule of a standard population (here again the national population) was used to calculate the regional total fertility rate, while South African life table data was used to calculate the regional net reproduction rate. For the

intermediate calculation of the gross reproduction rate it was necessary to distinguish between male and female births, and once more the national masculinity ratio at birth was considered to apply to the regional situation as well. The calculation of these three measures for the Midlands region for 1959-61 is set out in Table 30.

Column 1 (See Table 30 on page 79) lists the seven quinquennial age groups within the childbearing age bracket 15-49 years. The age-specific fertility rates of the standard population appear in column II and the number of Midlands females in each quinquennial group in column III. By applying the rates in column II to the corresponding female numbers in column III, the number of expected births (of both sexes) is obtained by age of mother in column IV. These numbers are regarded as a "first estimate" in the sense that they give the expected number of births to Midlands females on the assumption that they have an age-specific fertility schedule identical with that of the national population. Seeing that the actual number of regional births is known, it is possible to test the propriety of this assumption. For the years 1959-61 an average number of 1,245 births (of both sexes) was registered for the Midlands region, which was somewhat lower than the total expected number of 1,298 in column IV. This, of course, implies that the age-specific fertility rates of the standard population were somewhat too high to be an accurate reflection of regional fertility conditions, the ratio of actual to expected births being 0.9592. Multiplying all the numbers in column IV by this ratio, yields a set of revised estimates of regional births (of both sexes) by age of mother, shown in column V, of which the sum corresponds with the actual number of registered regional births. The estimated number of births in column V was then divided by the corresponding number of females in column III, to yield the set of age-specific fertility rates in column VI. The sum of these age-specific birth rates (0.6704) was multiplied by 5 (to allow for the quinquennial age grouping employed) to give the total fertility rate (T.F.R.) of 3.3520 children (of both sexes) per woman of reproductive age. The general fertility rate thus provides in a single figure an indication of the number of children (of both sexes) which would be born to a representative member of the female population who has reached the lower childbearing age limit (15 years) and is not expected to die before her fiftieth birthday.

As regional birth statistics are not published according to the sex of the child, it was assumed that the Midlands masculinity ratio at birth would coincide with the national one (103:100 during 1959-61), on which basis the female age-specific birth rate schedule in column VII was calculated. The sum of these rates (0.3252) multiplied by 5, gives the gross reproduction rate (G.R.R.) of 1.6290 female children per woman. Seeing that only female children represent potential future mothers, this rate is a somewhat more refined indication of fertility than the measures discussed previously. The gross reproduction rate thus represents the average number of daughters which would be born to a representative number of the potentially childbearing population, all whose members are expected to live until the end of their reproductive life span, giving birth to daughters in accordance with a fixed schedule of age-specific (female) birth rates.

For the calculation of the net reproduction rate it is necessary to make allowance for probable deaths among the members of the childbearing population. As it was previously found that the national age-specific mortality rates also appeared to be a close approximation of regional conditions, the relevant L_x values from the South African female life table for 1959-61 were used to measure the degree of risk of mortality to which the members of the reproductive age bracket were exposed. The figures in column VII were then multiplied by their respective survival factors

$$(5\,L_x / 5\,l_0)$$

in column VIII, to yield a schedule of expected female age-specific birth rates in

TABLE 30: WHITES - CALCULATION OF TOTAL FERTILITY RATE GROSS AND NET REPRODUCTION RATES, MIDLANDS 1959-61

I	II	III	IV	V	VI	VII	VIII	IX
Age Group	S.A. Age-Specific Fertility Rates 1959-61	Midlands Females 1960	First Estimate of Total Births	Revised Estimate of Total Births (0.9592)	Midlands Age-Specific Birth Rates 1959-61	Midlands Female Age-Specific Birth Rates 1959-61	Survival Factor $5L_x/5l_o$ 1959-61	Expected Female Age-Specific Birth Rates 1959-61
15-19	.0444	2,887	128	122	.0424	.0295	.9639	.0198
20-24	.2209	1,951	431	413	.2117	.1030	.9605	.0989
25-29	.2166	1,733	375	360	.2077	.1010	.9560	.0966
30-34	.1258	1,657	208	200	.1207	.0585	.9505	.0556
35-39	.0677	1,716	116	111	.0647	.0315	.9428	.0297
40-44	.0220	1,659	36	35	.0211	.0102	.9310	.0095
45-49	.0021	1,811	4	4	.0021	.0011	.9131	.0010
TOTAL		13,404	1,298	1,245	.6704	.3258		.3111
					x 5 =	x 5 =		x 5 =
					3.3520	1.6290		1.5555
					T.F.R.	G.R.R.		N.R.R.

column IX, thus making allowance for the probable influence of mortality. The sum of the rates in column IX (0.3111), again multiplied by 5, thus gives the net reproduction rate (N.R.R.) of 1.5555 for the Midlands region. The net reproduction rate may be regarded as an indication of the number of daughters (future mothers) which is expected to be born to a representative member of the group of females aged 15-19 years (present mothers) under prevailing conditions of fertility and mortality. That is, the number of daughters born to a member of the stationary female reproductive population. As such it is, of course, not merel a measure of fertility, but rather of potential natural increase, designed to answer the question: "Are fertility and mortality such that a generation which would be permanently subject to them would, during its lifetime, that is, until it had died out produce sufficient children to replace it ?"[91] The extent to which this figure exceeds unity would then be an indication of the natural increase potential of the population.

(4) A regional/national fertility comparison:

TABLE 31: WHITES - TOTAL FERTILITY RATE, GROSS AND NET REPRODUCTION RATES

Years	Midlands			South Africa		
	T.F.R.	G.R.R.	N.R.R.	T.F.R.	G.R.R.	N.R.R.
1945-47	3.0940	1.5085	1.3985	3.4455	1.6585	1.5375
1950-52	3.1725	1.5170	1.4265	3.3500	1.6305	1.5330
1959-61	3.3520	1.6290	1.5555	3.4975	1.7155	1.6380

Table 31 above, in conjunction with the fertility measures set out in Tables 28 and 29, provides a synoptic comparison of regional and national fertility conditions for the three census years 1946, 1951 and 1960.

Without exception, the fertility measures in this section indicate that the regional fertility performance appeared to be below the national level. In the case of the crude birth rate, it could be argued that continuous net out-migration from the region has resulted in a general population structure unfavourable to high fertility. Similarly with the general fertility rate, the comparatively lower Midlands figures may be ascribed to a distorted age pattern within the reproductive population group, brought about by the out-migration of females in the more fertile ages.

Such distortions may, however, be considered to have been removed by the standardisation procedure. Other explanations must therefore be found for the comparatively lower Midlands fertility performances as suggested by the sequentially calculated total fertility rate and gross and net reproduction rates. It would, for example, be necessary to show why the transplanted national age-specific birth rate schedule appeared too high when applied to the regional reproductive population - yielding an expected number of 1,298 births instead of the mean annual number of 1,245 actually registered births during 1959-61, thus giving a ratio of actual to expected births of 0.9592. (This ratio was even lower for past censuses: 0.9465 for 1950-52 and 0.9124 for 1945-47).

In the absence of more specific information, a reasonable explanation of the comparatively lower level of Midlands fertility would seem to be the presence there of an institutional female population group belonging to the younger fertile ages

(students at school, college, university, etc.) which, by its nature, is bound to have low rates of nuptiality and hence fertility. It has emerged previously that the presence and growth of educational institutions is a feature of the Midlands region, this giving rise to a body of young people who are not members of the labour force and who, in the majority of cases, are bound to postpone marriage until the completion of their studies. It also appeared from the previous chapter that, in contrast with the overall White demographic picture, the age group 15-19 years has tended to grow in absolute numbers in the Midlands region.

Should this indeed be how matters stand, the assumption made when calculating the (revised) age-specific Midlands birth rates (Table 30, column VI), namely, that all the quinquennial national age-specific birth rates (Table 30, column II) should be reduced by the same factor of 0.9592 (actual/expected births) would not be altogether sound. In other words, the regional rates should not be expected to deviate from those of the standard population by the same degree in all cases. It may therefore have been more appropriate to have assumed a greater deviation for the ages 15-24 and no deviation at all for the ages 25-49. In effect, seeing that the gap between the observed national and regional rates has, in general, tended to diminish over time, it is quite possible that females aged 25-49 years may show higher rates of fertility on the regional than the national level.

Simply on the basis of the observed data it would be in order to state that Midlands fertility appears to be below the national level. But were one to disregard differences in age structure and also to limit the comparison to a narrowly defined de jure population, this differential would presumably disappear and may perhaps even be reversed.

Against the general setting of demographic aging, it is interesting to note that the national total fertility rates in Table VII fell slightly between 1945-47 and 1950-52, to rise again between 1950-52 and 1959-61. This supports the previously advanced point that the demographic aging of South Africa's White population is still "partial" rather than "total".

TABLE 32: WHITES-NATIONAL AGE-SPECIFIC FERTILITY RATES

Age Group	1945-47	1950-52	1959-61
15-19	.0354	.0413	.0444
20-24	.1758	.1909	.2209
25-29	.1939	.1976	.2166
30-34	.1422	.1317	.1258
35-39	.0908	.0773	.0677
40-44	.0370	.0279	.0220
45-49	.0040	.0033	.0021
Total	.6891	.6700	.6995
T.F.R. =	3.4455	3.3500	3.4975

An intertemporal comparison of South Africa's age-specific fertility rates shows a persistent increase in the rates for the three younger quinquennial age groups, coupled with a persistent decline for the four older age groups. There

has been an apparent tendency to "bring forward" births by age of mother, but it is, of course, not possible to predict the eventual limits of this process. The tendency to build up a family at an earlier age may well be associated with economic prosperity, and if it is no more than a matter of bringing births forward, there need not be an enduring "baby boom" or rise in fertility.

National fertility fell somewhat between 1945-47 and 1950-52 because the increase in the younger age-specific fertility rates was not sufficient to compensate for the decline in the older fertility rates, as was the case between 1950-52 and 1959-61. There was, however, no apparent decline in the Midlands total fertility rate between 1945-47 and 1950-52. On the assumptions made, this may have been due to an increase in the relative number of children born to mothers aged 15-29 years, as in the national case, while there need not have been a corresponding decline in the relative number of children born to mothers of higher ages. A continuation of such a trend between 1950-52 and 1959-61 would serve to explain why the national/regional fertility gap has generally tended to narrow over time, while the prominent "sterile" component of the Midlands potentially child-bearing population would still account for the lower absolute level of regional fertility.

(c) Relationships between median age and crude vital rates: a comparison between magisterial districts

There is a general expectation that "young" populations should have relatively high birth rates coupled with relatively low death rates, and that this relationship should be reversed in the case of "old" populations. (Assuming infant mortality to be satisfactorily controlled, as would seem to be the case in the present context.

Table 33 (See page 83) relates the 1960 median age values to the 1959-61 crude birth and death rates observed in each of the 21 magisterial districts and in the three subregions comprising the Midlands region. The last column of the table gives the natural increase rate per 1,000 persons of the population, found by subtracting the crude birth rate. The same basic data are also represented by means of two scatter diagrams, relating the median age of each magisterial district to its respective crude birth rate (Figure 22 on page 84) and crude death rate (Figure 23 on page 85).

As in the case of the median age (MA), the crude vital rates of individual magisterial districts sometimes deviate very considerably from the overall regional mean values. The highest crude birth rate (CBR) was that for Noupoort (28.5) and the lowest that for Bathurst (11.6), while 9 districts had rates above and 12 districts rates below the overall regional mean (20.5). The lowest crude death rate (CDR) was that for Maraisburg (6.6), but as the average annual number of deaths for this district during 1959-61 amounted to a very low absolute figure (7), not much significance can be attached to it. (The Maraisburg crude death rates for 1945-47 and 1950-52 were 10.9 and 12.1, respectively.) Comparatively low crude death rates were also observed for Cradock (8.2), Middelburg (8.3), Noupoort (8.5) and Bedford (8.7), the last of which coincides with the national figure for 1959-61. The highest crude death rate in the region was that for Aberdeen (17.6). The Midlands natural increase per 1,000 persons was comparatively low, the regional and national rates for 1959-61 being 9.0 and 13.3 respectively. Altogether 10 districts showed a natural increase rate of less than 10.0 per 1,000, one of these (Bathurst) being negative. On the whole, the lowest natural increase rates were observed in Subregion III.

The attempt to correlate median age with the level of crude birth and death rates, yielded significant results in only the former case, where the

TABLE 33: WHITES - COMPARISON OF MEDIAN AGE AND CRUDE VITAL RATES, 1959 - 61

	Geographical Unit	Median Age (years)	Crude Birth Rate %	Crude Death Rate %	Natural Increase Rate %
1.	Aberdeen	28.9	20.2	17.6	2.6
2.	Graaff-Reinet	23.9	23.0	15.8	7.2
3.	Jansenville	28.0	24.6	13.3	11.3
4.	Murraysburg	27.1	21.2	9.1	12.1
5.	Steytlerville	30.9	15.7	11.6	4.1
	SUBREGION I	26.5	22.1	14.7	7.4
6.	Cradock	24.3	21.8	8.2	13.6
7.	Maraisburg	29.8	18.9	6.6	12.3
8.	Middelburg	25.7	26.4	8.3	18.1
9.	Noupoort	22.7	28.5	8.5	20.0
10.	Pearston	35.2	15.3	14.0	1.3
11.	Somerset East	25.1	27.9	10.2	17.7
12.	Steynsburg	33.2	14.5	11.4	3.1
13.	Tarka	30.9	22.0	13.7	8.3
	SUBREGION II	25.9	23.7	9.3	14.4
14.	Adelaide	24.7	19.8	10.5	9.3
15.	Albany	23.3	17.6	12.5	5.1
16.	Alexandria	31.5	16.1	9.8	6.3
17.	Bathurst	40.0	11.6	13.2	-1.6
18.	Bedford	27.7	17.4	8.7	8.7
19.	Fort Beaufort	28.6	24.6	13.1	11.5
20.	Stockenström	32.1	13.0	10.0	3.0
21.	Victoria East	34.7	16.5	9.9	6.6
	SUBREGION III	27.1	17.3	11.7	5.6
	MIDLANDS	26.5	20.5	11.5	9.0
	SOUTH AFRICA	25.8	22.0	8.7	13.3

FIG. 22: CRUDE BIRTH RATE BY MEDIAN AGE

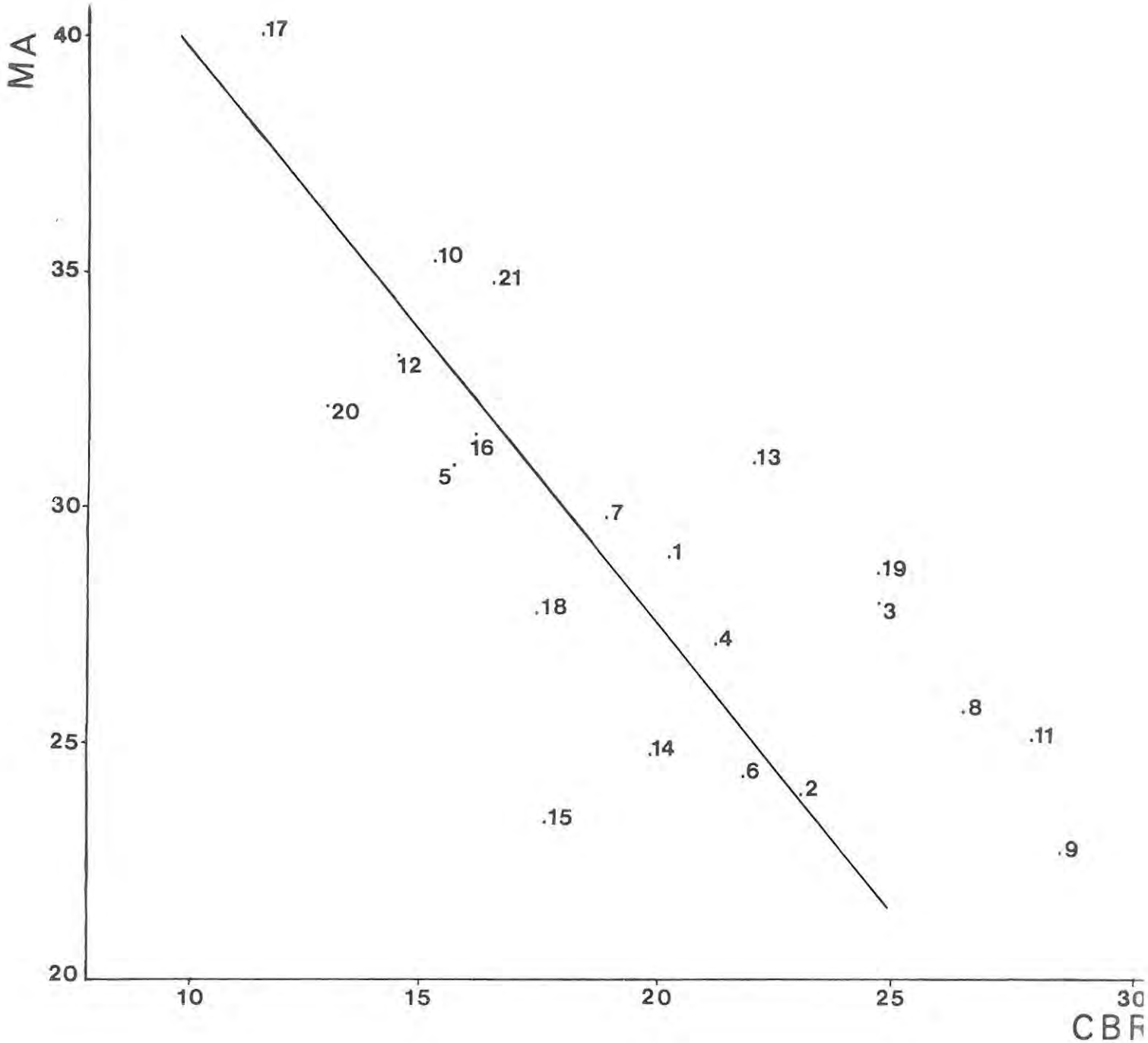
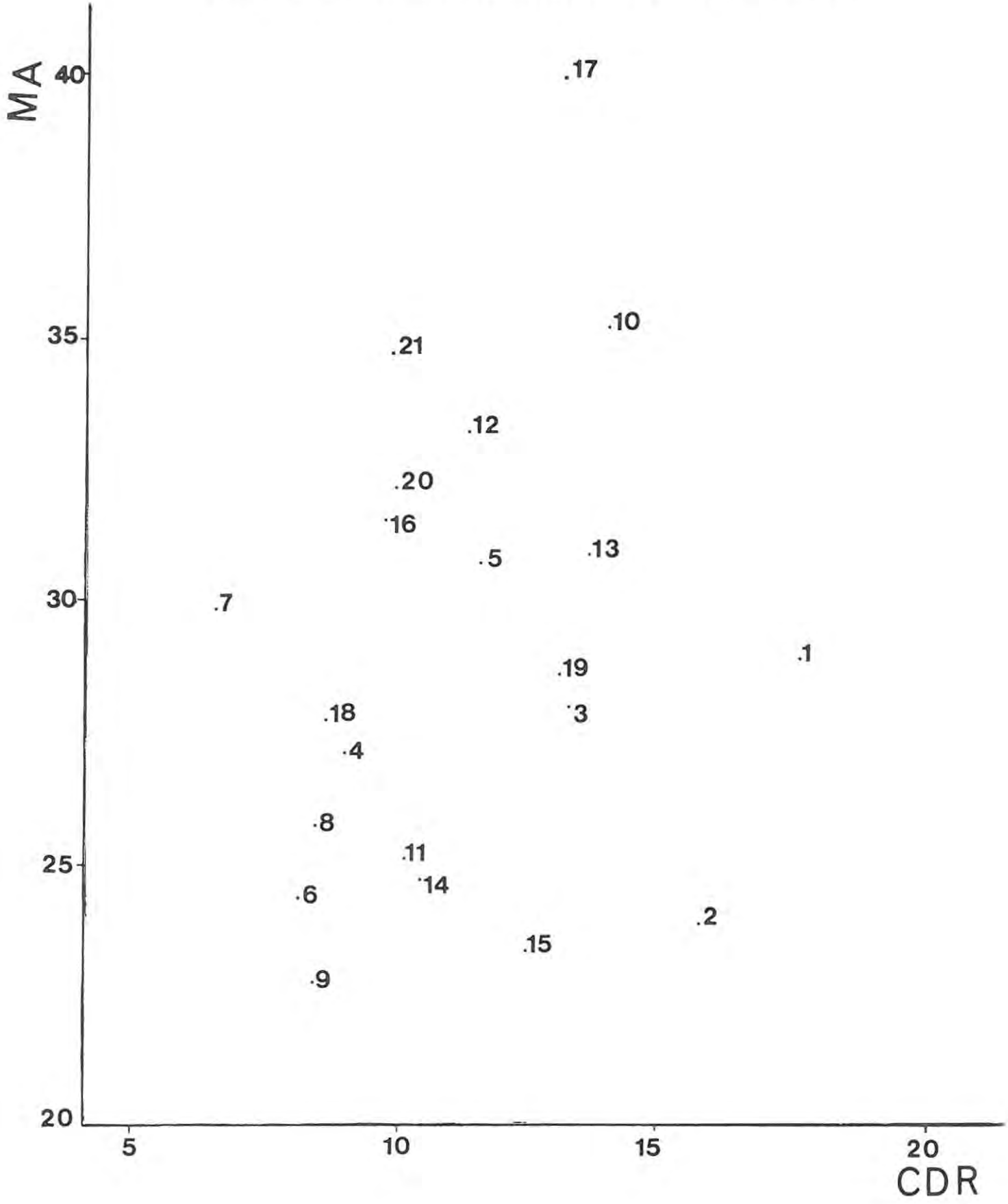


FIG.23: CRUDE DEATH RATE BY MEDIAN AGE



(negative) coefficient of correlation showed the value of 0.7234. This relationship is depicted in Figure 22, where the observed district values are scattered around the regression line at varying distances. (The least-squares regression equation was $Y = 41.9 - 0.8 X$, where X = median age and Y = crude birth rate.) No significant relationship was, however, found between district median age and crude death rate, where the correlation coefficient had the low (positive) value of 0.1885. To fit a regression line to the scatter diagram in Figure 23 would therefore amount to a virtually meaningless exercise. (Such a line would have a very slight positive slope.)

In both instances the lack of closer correlation can be, at least partly, attributed to the distorting effect of the body of relatively youthful temporary residents discussed previously. Only in certain extreme cases does one encounter a clear manifestation of the generally "expected" relationship between median age and vital rates. For example: Noupoort with the youngest population in terms of median age (22.7 years) had a comparatively high crude birth rate (28.5) and a comparatively low crude death rate (8.5), while Bathurst with the highest regional median age (40.0 years) had a birth rate (11.6) which fell short of its death rate (13.2). But then again, relatively "youthful" districts like Albany and Graaff-Reinet had birth rates below and death rates above the overall regional mean values. For both these districts it seems reasonable to conclude that the true process of demographic aging has been concealed by the presence of certain institutional population groups.

The relationships between median age, on the one hand, and fertility and mortality on the other, is furthermore obscured by the small absolute numbers on the basis of which the crude vital rates for the individual districts were calculated. This factor was particularly important in the calculation of the crude death rate, and may therefore also serve to explain why correlation was found especially poor between median age and crude death rate.

Everything considered, one is still left with the inescapable conclusion that changes in age structure have so far influenced fertility rather than mortality. That is, aging has served to lower birth rates rather than to raise death rates. This set of circumstances may in turn be expected to further the process of regional demographic aging.

(d) Residual Migration

Table 34 (See page 87) summarises the Midlands census and vital data for the calculation of residual migration by means of the "balancing equation"

$$I - E = P_{t+n} - P_t + B - D,$$

for the two intercensal periods 1946-51 and 1951-60.

In round numbers, the Midlands region lost some 12,680 persons through net out-migration during the period 1946-60, or some 20 per cent of its average White population. During 1946-51 the average annual loss amounted to some 1,040 persons, which declined to some 800 persons per year during 1951-60.

A breakdown of the entire region into its constituent subregions and magisterial districts shows that, with two exceptions, this process of population loss has been a general one.

TABLE 34: WHITES - CALCULATION OF RESIDUAL MIGRATION BY MEANS OF THE "BALANCING EQUATION"

Demographic Term	1946-51	1951-60
$P_{t+n} - P_t$	-2,111	-1,041
B	6,733	12,768
D	3,645	6,325
I - E	-5,199	-7,484

In Table 35 (See page 88) the population loss caused by residual migration during the two intercensal periods is shown both in absolute numbers and as an average annual percentage rate. On the whole there was some deceleration in the rate of population loss due to migration: from 1.7 per cent per annum during 1946-51 to 1.3 per cent during 1951-60, for the region in its entirety. On closer scrutiny it appears that the two intercensal rates remained constant for subregions I and II (at 2.2 and 1.7 per cent, respectively), and that the decline in the rate for Subregion III (from 1.3 to 0.5 per cent) was entirely due to a net in-migration of some 910 persons into Albany during 1951-60. The only other example of net in-migration was that of some 190 persons into Bathurst during 1946-51. In the absence of more specific information, a plausible explanation of the latter phenomenon would be the development of the town of Port Alfred as a holiday and retirement resort. The estimated 1951-60 net immigration into Albany would appear to be associated with the further growth of Grahamstown as an educational centre.

It is possible to gain an insight into the approximate sex-age composition of the population lost to the Midlands region through migration by extrapolating and/or retropolating the published census statistics by means of appropriate survival factor schedules. In the present case both extrapolation and retropolation of the region's male and female population components by quinquennial age groups were (separately) undertaken by means of a set of survival factors constructed by Sadie for the national population. The projected figures were related to actual census dates by pro-rating where necessary, and then compared with the recorded census figures themselves, the difference between the two sets of figures being indicative of the extent of intercensal net migration. (Assuming census and registered birth statistics to be accurate and the survival factors appropriate.)

The two projection techniques yielded results in close agreement with each other. The estimates of the number of net migrants obtained from a combination of both projection methods were also in reasonable alignment with the figures previously derived from the application of the balancing equation, as may be seen from the following summary:

	1946-51	1951-60
Balancing equation (both sexes):	-5,200	-7,480
Projection method		
Males:	-2,670	-3,410
Females:	-2,650	-4,550
Both sexes:	-5,320	-7,960

TABLE 35: WHITES - POPULATION LOSS THROUGH RESIDUAL MIGRATION BY MAGISTERIAL DISTRICT

Geographical Unit	1946-51		1951-60	
	Number	Rate	Number	Rate
Aberdeen	400	3.4	490	2.5
Graaff-Reinet	680	2.0	1,020	1.7
Jansenville	120	0.8	780	3.1
Murraysburg	70	1.3	190	2.0
Steytlerville	340	4.5	280	2.3
SUBREGION I	1,610	2.2	2,760	2.2
Çradock	240	0.7	920	1.5
Maraisburg	200	3.1	310	2.9
Middelburg	130	1.8	120	0.6
Noupoort	170	1.8	120	0.6
Pearston	250	5.2	70	1.0
Somerset East	550	2.3	1,310	3.2
Steynsburg	120	1.5	320	2.4
Tarka	240	3.4	160	1.3
SUBREGION II	1,900	1.7	3,420	1.7
Adelaide	170	1.8	230	1.4
Albany	880	1.5	+ 910	+ 0.8
Alexandria	250	1.8	270	1.1
Bathurst	+ 190	+ 1.3	420	1.6
Bedford	230	2.5	330	2.1
Fort Beaufort	110	1.1	320	1.7
Stockenström	230	3.2	400	3.7
Victoria East	10	0.2	260	2.1
SUBREGION III	1,690	1.3	1,300	0.5
MIDLANDS	5,200	1.7	7,480	1.3

For the entire period 1946-60 the "projection" estimate exceeded the "balancing equation" estimate by some 600 persons of both sexes, or 4.7 per cent.

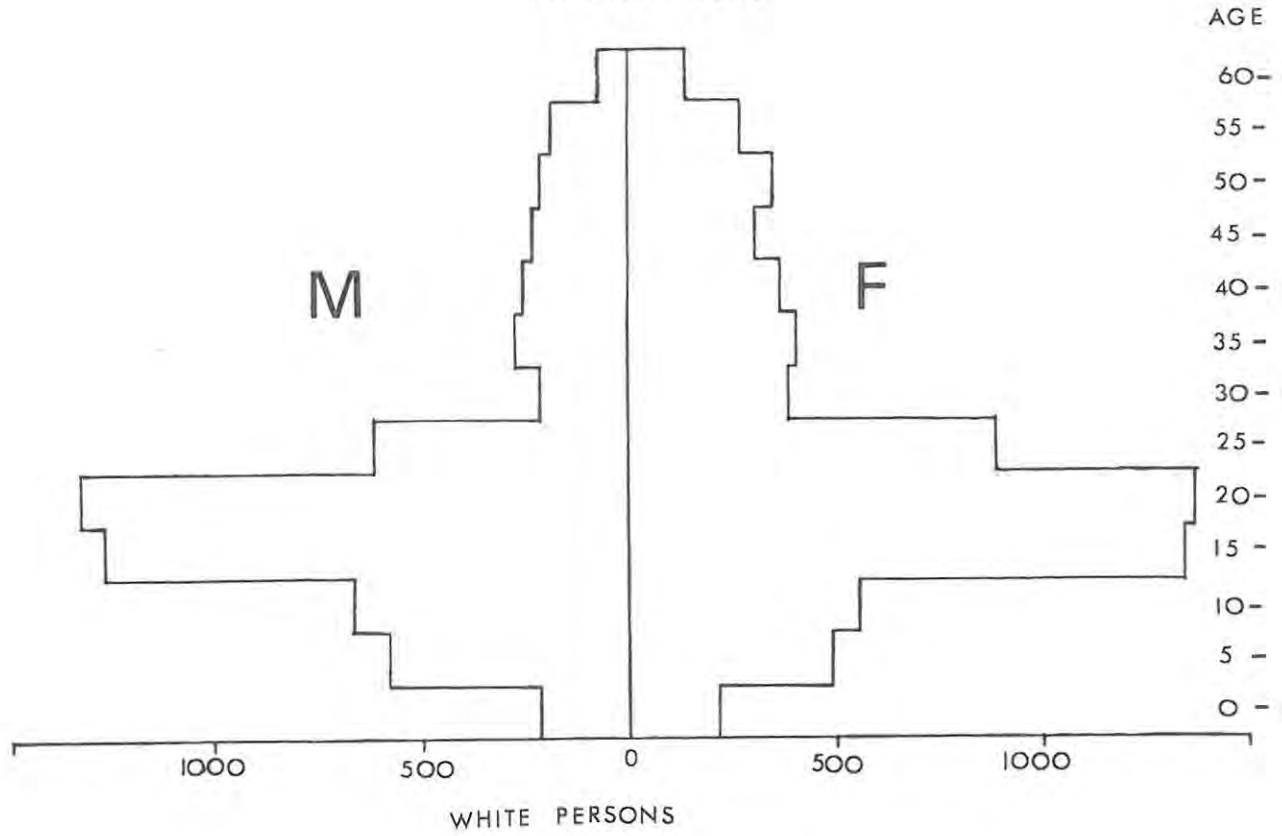
In view of the greater degree of uncertainty involved in the projection method, it was decided to accept the figure obtained by means of the balancing equation as the more accurate estimate of the total number of net out-migrants, and to impute to this total the sex-age characteristics yielded by the projection method. There remained the difficulty that the projection only showed the number of surmised migrants by which a quinquennial cohort had declined between consecutive census dates and not their age at the time of the move itself. To estimate the age-selectivity of migration it was simply assumed in the case of overlapping age groups, that migrants who intertemporally appeared to straddle two quinquennial groupings should be divided between them in proportion to the average number of actually enumerated persons in the two age groups at the time of the censuses concerned. Although it is known that people do settle in the Midlands regions for the purpose of retirement, it was further assumed that the net migration of persons aged 65 years and over may be disregarded.

The results of these somewhat lengthy statistical operations appear in Table 36 where the balance of assumed out-migrants from the Midlands has been given according to sex and age for the census intervals 1946-51 and 1951-60. Figure 24 on page 90 represents graphically the same basic demographic structure of this body of residual migrants for the entire period 1946-60.

TABLE 36: WHITES - RESIDUAL MIGRATION BY SEX AND AGE

Age Group	1946-51				1951-60			
	Males		Females		Males		Females	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
0-4	20	0.4			200	2.7	220	2.9
5-9	240	4.6	140	2.7	210	2.8	350	4.7
10-14	430	8.3	280	5.4	90	1.2	270	3.6
15-19	770	14.8	720	13.8	490	6.6	600	8.0
20-24	580	11.2	520	10.0	730	9.8	820	11.1
25-29	170	3.3	180	3.5	440	5.9	570	7.6
30-34	30	0.6	130	2.5	190	2.5	250	3.3
35-39	70	1.3	150	2.9	190	2.5	240	3.2
40-44	80	1.5	140	2.7	170	2.3	230	3.1
45-49	70	1.3	120	2.3	160	2.1	190	2.5
50-54	70	1.3	100	1.9	150	2.0	240	3.2
55-59	60	1.2	70	1.3	120	1.6	200	2.7
60-64	20	0.4	40	0.8	60	0.8	100	1.3
Total	2,610	50.2	2,590	49.8	3,200	42.8	4,280	57.2

FIG. 24: RESIDUAL MIGRATION by SEX & AGE 1946-60



It must, of course, be stressed that the distributions shown in Table 36 and Figure 24 do not refer to any actual body of migrants as would be the case with either gross in - or out - migrants. They rather refer to a theoretical configuration, namely, the surmised excess of out-migrants in each of the represented configuration, namely, the surmised excess of out-migrants in each of the represented quinquennial age groups according to sex. The greatest apparent population loss occurred within the age bracket 15-19 years; for the period 1946-60 some 52 per cent of all estimated net out-migrants fell within these age limits. This in itself is not a finding of a "surprising" nature, but it may require some comment in the present regional context.

It has been pointed out repeatedly that the Midlands population includes a prominent component of young people at a number of educational and other training establishments. The quantitative impact of these persons is of such order as to have brought about a relative Midlands surplus of males aged 10-19 and females aged 15-19 years vis-à-vis the national population. (See Chapter II, Figure 3). The large concentration of estimated net out-migrants in the age group 15-19 years therefore points to the phenomenon that the growth of such establishments in the Midlands has in no way kept pace with the out-migration of young people from the region. It also serves to lend support to the previously expressed notion that it may be realistic to exclude persons aged 15-19 years from the regional potential labour force. The bulk of the young people actually present in this age group would

appear to be undergoing some form of pre-work training, while those seeking employment are wont to leave the region.

Certain intertemporal changes appear to have taken place in the general structure of the residual migrant body. While an approximately equal sex distribution (males: 50.2 per cent, females: 49.8 per cent) was observed during 1946-51, a clear female surplus was indicated for 1951-60 (males 42.8 per cent, females 57.2 per cent). There was also an increase in the estimated median age of the residual migrants from 1946-51 (males: 18.5 years, females: 21.0 years) to 1951-60 (males: 23.7 years, females: 23.8 years). It emerged previously that the observed deceleration in the average annual rate of net out-migration from the region had, at least statistically, it main cause in the net in-migration into the district of Albany during 1951-60. This could in turn be attributed to the growth of the educational institutions situated in Grahamstown; a greater influx of students and trainees may then account for both the smaller average annual number of net out-migrants and the rise in their surmised median age during the period 1951-60.

While allowing for certain local peculiarities, it may be concluded that the major part of the post-war population loss to the Midlands region concerned the younger members of the labour force. There has, on the whole, been a marginally greater net loss of females, whose age distribution also appears somewhat less unevenly spread than that of the male residual migrants. (This may be regarded as a comparatively recent phenomenon. See Chapter II, Section II).

III Coloureds

(a) Mortality

The crude and standardised death rates:

Previous research has suggested that underregistration of Coloured deaths since the second World War has been of a negligible order. The degree of census underenumeration in 1946, 1951 and 1960 has been estimated at 7.6, 3.8 and 1.2 per cent, respectively.[92] The observed (or unadjusted) crude death rate would therefore tend to exaggerate the true level of Coloured mortality, although the discrepancy should progressively decline over time.

On the basis of the test carried out in the previous chapter, it was not possible to decide conclusively that regional Coloured age-specific data were less accurate than the corresponding national statistics. It did, however, appear that, during the 1951 census in particular, there were substantial errors of classification of the Midlands Coloured population. The criteria which have been employed to correct or adjust seemingly erroneous national data may therefore not always be fully applicable to corresponding regional data. Because of the numerous uncertainties involved, all the regional/national comparisons which follow in this section are, for better or worse, based on the simple principle that both sets of data to be compared must be based on either unadjusted or on adjusted figures.

There appears to be no significant difference between the Midlands number of Coloured deaths registered according to the place of death and according to the place of usual residence of the deceased, which suggests that no extensive use was made of medical facilities outside the region.

The figures in Table 37 (See page 92) suggest that both regional and national crude mortality have declined between 1946 and 1960, rather more clearly so in

the national case. When the crude rates are adjusted for probable census underenumeration (by the same degree in both cases), the Midlands figure shows a slight increase from 1945-47 to 1950-52. This could have been caused by net out migration from the region, or it may be that in 1951 Coloured census underenumeration in the Midlands exceeded the estimated national figure of 3.8 per cent.

TABLE 37: COLOUREDS - CRUDE AND STANDARDISED DEATH RATES (PER THOUSAND)

Years	Crude Death Rate		Standardised Death Rate
	Midlands	South Africa	Midlands
(a) Unadjusted Rates:			
1945-47	20.0	21.4	19.0
1950-52	19.4	19.4	18.3
1959-61	17.5	15.3	16.1
(b) Adjusted Rates:			
1945-47	18.4	19.7	17.5
1950-52	18.6	18.7	17.6
1959-61	17.3	15.1	15.9

Table 38 (See page 93) shows the calculation of the 1959-61 age-standardised death rate for the Midlands Coloured population (based on unadjusted census data), following the same method as was used for the region's White population in the previous section.

Standardisation tends to bring regional and national mortality into somewhat closer alignment, which suggests that the process of regional net out-migration has been working toward an age structure conducive to higher mortality than in the national case. The remaining difference between the crude national and standardised regional death rates, which amounted to only 0.8 per 1,000 for 1959-61, may also suggest that available medical services were not as good in the Midlands region as in South Africa generally, but on the whole it would not seem unduly unrealistic to apply national life table data to the regional population as well. This procedure may in any event prove to be unavoidable as a matter of practical expediency. Generally speaking, Coloured mortality appeared to be about twice the White level.

(b) Fertility. (1) Crude birth rate:

As in the case of death registration, there was no significant difference between the number of Coloured births registered by place of occurrence and by place of residence of mother for the Midlands region.

TABLE 38: COLOUREDS - INDIRECT STANDARDISATION OF MIDLANDS DEATH RATE, 1959-61

I	II	III	IV
Age Group	South Africa Age Specific Death Rates 1959-61	Midlands Population 1960	Expected Deaths in Midlands
0 - 4	.0473	15, 225	758
5 - 9	.0017	13, 143	23
10 - 14	.0012	10, 449	14
15 - 19	.0020	7, 329	16
20 - 24	.0034	6, 323	22
25 - 29	.0042	4, 883	22
30 - 34	.0054	4, 102	23
35 - 39	.0071	3, 423	25
40 - 44	.0087	3, 028	27
45 - 49	.0117	2, 641	33
50 - 54	.0173	2, 250	41
55 - 59	.0225	1, 710	40
60 - 64	.0357	1, 626	61
65 - 69	.0487	1, 179	60
70 - 74	.0660	947	66
75+	.1298	1, 146	157
Unspecified	.0153	76	1
TOTAL	.0153	79, 480	1, 320
Total Average Deaths Actually Registered 1959-61:			1, 388
Ratio : Actual Deaths/Expected Deaths:			1.0515
Age-Standardised Death Rate : (Ratio)x(Crude Death Rate of Standard Population)			16.1 per thousand

TABLE 39: COLOUREDS - CRUDE BIRTH RATE (PER THOUSAND)

Years	Midlands	South Africa
(a) Unadjusted Rates:		
1945-47	41.3	45.4
1950-52	44.7	47.6
1959-60	46.2	45.9
(b) Adjusted Rates:		
1945-47	40.0	43.8
1950-52	44.9	47.7
1959-60	47.6	47.3

According to recent research findings, South African Coloured births appear to have been underregistered by 4.4 per cent during the intercensae period 1946-51 and by 4.1 per cent during 1951-60.[93] Assuming that the former figure also applied to the average number of births registered during 1945-47 and the latter to those registered during 1950-52 and 1959-61, it is possible to construct a schedule of adjusted birth rates such as in Table 39 (b), where the three census totals have also been adjusted for underenumeration. Compared with the unadjusted crude birth rates in Table 39 (a), it would appear that regional and national crude fertility were at the same approximate level by 1959-61. Both appeared to have risen relative to 1945-47, the rise being somewhat more prominent in the case of the adjusted than the unadjusted schedules. The use was an uninterrupted one for the Midlands, while the national crude birth rate values for 1959-61 were somewhat lower than those for 1950-52. In the case of the adjusted crude birth rate schedule, this difference was almost negligible. On the whole, the effect of the adjustments was to raise the absolute level of fertility marginally.

(2) General fertility rate:

The rising trend of fertility which the unadjusted general fertility rate schedules in Table 40 (a) below suggest for both the Midlands region and South Africa as a whole is accentuated when the number of births and the female population aged 15-49 years are adjusted for probable underregistration and underenumeration in Table 40 (b). Starting from a slightly lower level in 1945-47, the Midlands rates rose to approximately the national level in 1950-52 and surpassed it in 1959-61. The general fertility rate for 1959-61 also suggests a rather greater regional/national fertility differential than did the crude birth rate. The general level of Coloured fertility appears to be more than twice that of the White population.

TABLE 40 : COLOUREDS - GENERAL FERTILITY RATE (PER THOUSAND)

Years	Midlands	South Africa
(a) Unadjusted Rates:		
1945-47	192.0	194.3
1950-52	202.2	202.7
1959-61	227.4	203.9
(b) Adjusted Rates:		
1945-47	189.3	192.1
1950-52	208.8	209.3
1959-61	235.8	211.5

(3) Total fertility rate, gross and net reproduction rates. Calculated by standardisation procedures:

As in the case of the White regional population, more detailed regional Coloured fertility measures must be calculated by means of "indirect" standardisation, where the national Coloured population is taken as the standard. Table 41 below shows the calculation of the total fertility rate and the gross and net reproduction rates for the Midlands Coloured females aged 15-49 years, on the basis of unadjusted data, for 1959-61.

TABLE 41 : COLOUREDS - CALCULATION OF TOTAL FERTILITY RATES, GROSS AND NET REPRODUCTION RATES, MIDLANDS 1959-61

I Age Group	II S. A. Age Specific Fertility Rates 1959-61	III Midlands Females 1960	IV First Estimate of total Births	V Revised Estimate of total Births (1.1312)	VI Midlands Age-Specific Birth Rates 1959-61	VII Midlands Female Age-Specific Birth Rates 1959-61	VIII Survival Factor $5L_x/51_o$	IX Expected Female Age-Specific Birth Rates 1959-61
15-19	.1222	3,714	454	514	.1384	.0689	.8034	.0554
20-24	.3218	3,254	1,047	1,185	.3642	.1813	.7947	.1441
25-29	.3085	2,553	788	891	.1739	.1739	.7823	.1360
30-34	.2375	2,095	498	563	.2687	.1337	.7671	.1026
35-39	.1779	1,738	309	350	.2014	.1001	.7467	.0747
40-44	.0821	1,528	125	141	.0923	.0458	.7212	.0330
45-49	.0206	1,270	26	29	.0228	.0110	.6926	.0076
Total		16,152	3,247	3,673	1.4368 x5= 7.1840 T.F.R.	.7147 x5= 3.5735 G.R.R.		.5534 x5= 2.7670 N.R.R

In Table 41 the seven quinquennial age groups within the childbearing age bracket 15-49 years are listed in column I, the age-specific fertility rates of the standard population in column II, and the number of Midlands females enumerated in each group in the 1960 census in column III. The resulting "first estimate" of births (of both sexes) to Midlands mothers by age is given in column IV. The total number of expected births amounted to 3,247, this being a smaller figure than the average number of 3,673 births actually registered during 1959-61, the ratio of actual to expected births being 1,1312. Raising all the numbers in column IV by this factor yields a revised schedule of births (of both sexes) by age of mother in column V, and a schedule of age-specific birth rates for Midlands females in column VI. The sum of these rates (1,4368) multiplied by 5, gives a total fertility rate (T.F.R.) of 7.1840 children (of both sexes) per woman of reproductive age. Assuming the masculinity ratio at birth to be 101 (the observed national ratio), gives the schedule female age-specific birth rates in column VII, and a gross reproduction rate (G.R.R.) of 3.5735 female children per woman. Probable deaths among the members of the reproductive population were assumed to take place in accordance with the relevant national life table L_x values, in column VIII, thus yielding a net reproduction rate (N.R.R.) of 2.7670, in column IX. By any standard of comparison, this may be regarded as a fairly high figure, indicative of a considerable potential increase.

Table 42 summarises the (unadjusted) regional and national fertility measures, set out in the previous table, for 1945-47, 1950-52 and 1959-61.

TABLE 42: COLOUREDS - TOTAL FERTILITY RATE, GROSS AND NET REPRODUCTION RATES

Years	Midlands			South Africa		
	T.F.R.	G.R.R.	N.R.R.	T.F.R.	G.R.R.	N.R.R.
1945-47	6.3525	3.1410	2.0390	6.3300	3.1235	2.0270
1950-52	6.5740	3.2715	2.2595	6.4680	3.2210	2.2250
1959-61	7.1840	3.5735	2.7670	6.3530	3.1635	2.4490

The above measures suggest two phenomena : (1) An increasing trend of fertility for the Midlands female reproductive population, and (2) a clearly higher regional than national level of fertility, especially for 1959-61. In contrast with the regional case, the national total fertility rate and gross reproduction rate apparently fell somewhat between 1950-52 and, 1959-61. On this phenomenon Sadie has commented as follows: "Like the crude birth rates the Gross Reproduction Rate does not show any decided long term tendency. The level of fertility has remained near the maximum ... Some of the fluctuations in the age-specific fertility rates may be due to errors in age reporting and in the distribution of unregistered births among women in the various age groups. Subject to this qualification the following tentative conclusions are permissible:- the frequency of births among the women younger than 20 has been clearly on the increase, concomitantly with ... rising rates of illegitimacy or extra-nuptial fertility; there is no definite trend in the fertility rates among women between the ages of 20 and 35; and there appears to be a decided downward trend in respect of women 35 years and older. In consequence the average age of mothers at the birth of a child has declined by a small fraction ... and the average period of reproductivity accordingly terminated somewhat earlier."[94]

These conclusions may also be applicable to Midlands Coloured fertility conditions, with one significant exception, namely there appears to be no evidence that the fertility of Midlands women 35 years and older has undergone a decline such as in the national case. This state of circumstances would then possibly serve to explain both the uninterrupted rise in regional fertility and its comparatively high level, that is, above the national level, for 1959-61.

Sadie's researches led him to adjust the national Coloured gross reproduction rate values to a higher level than what was indicated by the published data. An equivalent upward revision of the corresponding Midlands values provides the following comparison:

	South Africa	Midlands
1945-47	3.222	3.240
1950-52	3.322	3.374
1959-61	3.282	3.707

A decidedly higher level of regional fertility is also suggested by a comparison of the regional and national population pyramids (See Chapter II, Figure 12).

(c) Residual Migration

Table 43 contains the basic census and vital data for the calculation of net migration for the Midlands region by means of the "balancing equation." The figures in part (a) of the table have not been adjusted for probable census underenumeration or the underregistration of births. These adjustments have been effected to the figures in part (b) of the table, in accordance with the national criteria set out above.

TABLE 43: COLOUREDS - CALCULATION OF RESIDUAL MIGRATION BY MEANS OF THE "BALANCING EQUATION."

Demographic Term	1946-51	1951-60
(a) Unadjusted Data:		
Pt+n - Pt	5,653	14,762
B	13,216	31,515
D	6,275	12,642
I - E	- 1,288	- 4,111
(b) Adjusted Data:		
Pt+n - Pt	3,276	13,192
B	13,824	32,862
D	6,275	12,642
I - E	- 4,273	- 7,028

The unadjusted data in Table 43 (a) yield some seemingly peculiar results. According to those, the average annual regional population loss through migration

During 1946-51 (260 persons) fell short of that observed during 1951-60 (440 persons). Such a finding would then contradict a previously expressed belief that the rate of Coloured out-migration from rural and other non-metropolitan areas appeared to have been particularly rapid during the years immediately following the second World War. This may, for example, be inferred from the increase in the Coloured metropolitan population at an average annual rate of 6.3 per cent during 1946-51, as against 3.9 per cent during 1951-60. Further examination of the unadjusted regional "balancing equation" data laos reveals an apparent net in-migration of Coloured persons into Subregion III at an average annual rate of 0.6 per cent during 1946-51, which was reversed into a process of net out-migration at an average annual rate of 0.2 per cent during 1951-60. There is, however, no practical evidence in support of any such recent net in-migration into this subregion. On the contrary, practical observation suggests a comparatively limited Coloured encroachment as such of Subregion III, which mainly consists of districts situated in or in close proximity of established Bantu areas.

The assumption that the degree of estimated national population under enumeration in 1946, 1951 and 1960, as well as the order of national underregistration of intercensal births, would also apply to the published Midlands statistics, yields a more plausible set of data, given in Table 43 (b). The adjusted figures indicate a rather greater absolute balance of Coloured out-migrants, and also a deceleration in their rate of net out-migration, from an average annual figure of some 860 persons during 1946-51 to some 760 persons during 1951-60. An accordingly revised subregional comparison suggests that all three subregions experienced a net out-migration of Coloured persons during both intercensal periods, with Subregion I showing the greatest absolute and relative values. While the average annual percentage rates appeared to have declined from 1946-51 to 1951-60 for Subregions I and II, the corresponding rate for Subregion III, however, showed an intertemporal increase. These average annual percentage rates of net Coloured out-migration are summarised below:

	1946-51	1951-60
Subregion I	2.2	1.8
Subregion II	1.0	0.5
Subregion III	0.3	0.6
Midlands	1.3	1.0

An attempt to discover the probable sex-age characteristics of the body of estimated Coloured residual migrants, necessitates more detailed adjustments to the published census statistics. Table 44 (see page 99) gives the thus "reconstructed" Midlands census populations by sex and age for 1946, 1951 and 1960, which were calculated on the basis of Sadie's reconstruction of the national Coloured population.

These reconstructed figures were projected between census dates by means of the relevant national survival factors, in order to estimate the sex-age properties of the population lost to the Midlands as a result of net out-migration. Pro-rating was applied when necessary. As in the case of the White estimate, it was decided to disregard possible Coloured migration of persons aged 65 years and older. The projections suggested some net in-migration of persons belonging to the age group 0-4 years. The probable explanation of this statistical oddity may be that the degree of regional underenumeration of the age group 0-4 and/or the regional underregistration of births exceeded the corresponding national values. For the sake of greater realism, the net migration of persons aged 0-4 years was therefore assumed to be zero.

TABLE 44 : COLOUREDS - "RECONSTRUCTED" POPULATION OF MIDLANDS REGION

Age Group	1946		1951		1960	
	Males	Females	Males	Females	Males	Females
0- 4	5,290	5,460	6,200	6,100	7,800	7,970
5- 9	4,900	4,740	4,440	4,540	6,670	6,530
10-14	4,260	4,170	4,420	4,200	5,210	5,260
15-19	3,350	3,180	3,800	3,520	3,650	3,810
20-24	2,340	2,400	2,750	2,710	3,100	3,160
25-29	2,040	2,160	2,070	2,250	2,440	2,590
30-34	1,870	1,790	1,880	1,860	2,010	2,100
35-39	1,650	1,520	1,630	1,550	1,690	1,740
40-44	1,330	1,370	1,430	1,400	1,500	1,530
45-49	1,180	1,060	1,190	1,160	1,370	1,310
50-54	970	980	1,070	950	1,170	1,120
55-59	840	770	860	820	910	820
60-64	680	830	750	620	720	880
65-69	580	500	580	550	620	570
70-74	410	390	410	420	480	460
75-79	250	230	280	260	330	310
80-84	150	110	160	160	170	170
85+	90	130	130	120	70	90
Total	32,180	31,790	34,050	33,190	40,010	40,420
Both Sexes:	63,970		67,240		80,430	

The results obtained from the projection method are compared below to those previously yielded by the balancing equation:

	1946-51	1951-60
Balancing equation (both sexes):	-4,270	-7,030
Projection method		
Males:	-2,330	-4,070
Females:	-2,220	-3,410
Both Sexes:	-4,550	-7,480

For the entire period 1946-60, the results of the balancing equation fell short of those of the projection method by some 730 persons or 6.1 per cent. As there appears reason to believe that the regional underregistration of births may well have been greater than on the national level, it was decided (unlike the case with the Whites) to accept the higher of the two estimates as the more accurate indication

of the extent of residual migration. The assumptions made in order to estimate the probable age of the migrants at the time of the move were, in general, the same as in the case of the White residual migrant body.

Table 45 thus gives the probable sex-age structure of the body of estimated Coloured residual migrants from the Midlands region for the two census intervals 1946-51 and 1951-60, while Figure 25 on page 101 represents the same demographic properties for the entire period 1946-60.

TABLE 45: COLOUREDS - RESIDUAL MIGRATION BY SEX AND AGE

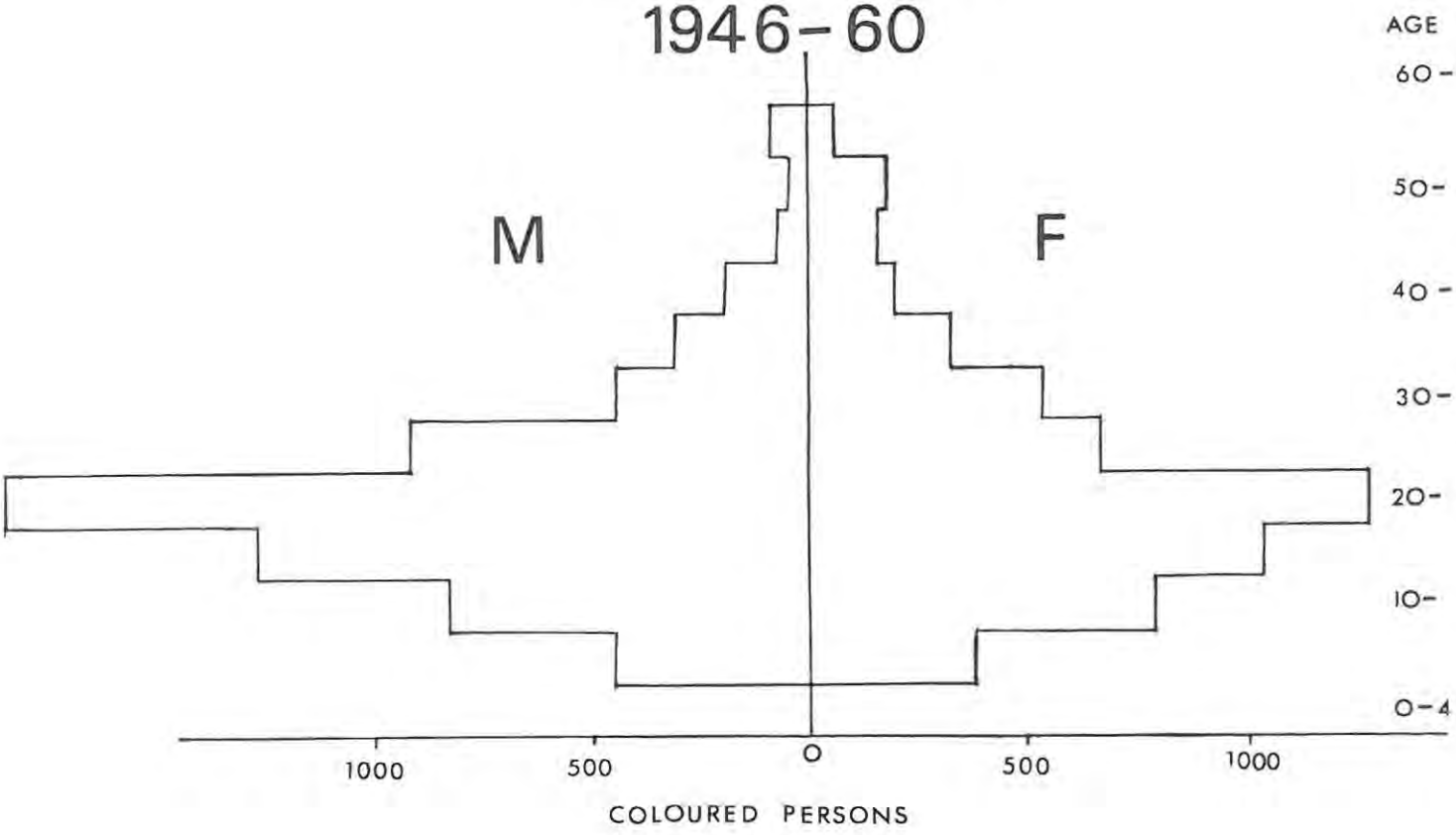
Age Group	1946-51		1951-60	
	Males	Females	Males	Females
0- 4	0	0	0	0
5- 9	230	240	220	130
10-14	320	320	510	460
15-19	440	370	820	670
20-24	810	540	1,030	730
25-29	170	200	740	470
30-34	130	190	320	340
35-39	120	90	180	240
40-44	70	90	110	120
45-49	20	70	40	100
50-54	0	50	40	140
55-59	20	60	60	10
60-64	0	0	0	0
Total	2,330	2,220	4,070	3,410

The total estimated loss of some 12,030 persons during 1946-60 amounted to almost 17 per cent of the region's (average) Coloured population. The previously formed impression that the rate of out-migration during 1946-51 exceeded that during 1951-60, was supported by the results of the projection method which yielded the average annual rates of net out-migration of 1.4 and 1.1 per cent for the two periods, respectively. There was an apparent male surplus of residual migrants during both census intervals; for the entire period 1946-60 the residual body consisted of 53.4 per cent males and 46.6 per cent females. There was also a marked concentration of migrants in the younger working ages: some 66 per cent of their estimated number fell within the age bracket 15-19 years, as compared with 52 per cent in the case of White residual migrants during 1946-60. A slight rise in the median age of the residual migrant population was observed from 1946-51 (males: 20.6 years, females: 21.2 years) to 1951-60 (males: 21.9 years, females: 22.6 years).

Net out-migration thus appeared to have had a smaller quantitative impact on the regional Coloured population than in the case of the Whites. This appears to be due mainly to the prolific regional Coloured fertility. Consequently the process of continued regional net out-migration has led to the juvenescence of the Midlands

Coloured population, rather than aging, as was the case with the regional White population.

FIG. 25: RESIDUAL MIGRATION by SEX and AGE 1946-60



IV Bantu

The demographic data available for the Bantu population of the Midlands region is indeed deficient. The most detailed set of age-specific statistics, based on quinquennial age groups, is that provided by the 1960 census enumeration. The 1951 census data are published by decennial age groups, and prior regional census data are not available according to age at all. As mentioned before, no vital statistics have as yet been published for the Bantu population. Official life tables are also lacking.

The general state of the demographic data pertaining to the (national) Bantu population has been described as follows:

"A set of interrelated demographic magnitudes) is lacking in the case of the Bantu population; and an evaluation of their demographic data consists in more than merely marginal adjustments to statistics which could approximately reflect the true levels of the relevant demographic magnitude. Rather, a full line operation is required to estimate these ab initio; to create quantities, as it were, from data whose comprehensiveness cannot be tested to the researcher's complete or reasonable satisfaction."[95]

Evaluation and analysis of regional Bantu data are, of course, even further complicated by the unknown scope and nature of migration to which the population has been subject. In the present case it was decided, first to estimate a probable number for the residual migrants during 1951-60, and then to infer something about the crude vital rates which may have prevailed during this period.

Sadie found that the national Bantu population (including foreign-born persons) had been underenumerated by 8.6 per cent in 1951 and 5.2 per cent in 1960.[96] The same order of underenumeration was assumed to have taken place in the Midlands region, where foreign-born Bantu are also known to be living. As in the case of the Coloureds, the regional Bantu census populations for 1951 and 1960 were reconstructe on the basis of this assumption. It was decided not to attempt to halve the decennial age group data for 1951, because of the unknown age-distributional irregularities caused by migration. Besides, the 1951 Bantu population statistics as such, are of a somewhat conjectural nature because of the previously mentioned race misclassification which is known to have occurred in the Midlands region. The reconstructed Bantu population of the Midlands for 1960 is given, by quinquennial age groups, in Table 46.

TABLE 46: BANTU - "RECONSTRUCTED" POPULATION OF MIDLANDS REGION, 1960

Age Group	Males	Females
0- 4	23,950	24,220
5- 9	20,750	20,320
10-14	16,780	16,880
15-19	12,510	14,050
20-24	8,570	10,550
25-29	7,040	8,150
30-34	6,440	6,840
35-39	5,470	6,070
40-44	4,850	5,490
45-49	4,180	4,700
50-54	3,960	4,060
55-59	3,180	3,310
60-64	2,770	2,900
65-69	1,880	2,120
70-74	1,320	1,320
75+	1,320	1,220
Total	124,970	132,200
Both Sexes:	257,170	

Seeing that there are no survival factor schedules available for a direct projection of Bantu population numbers, certain further assumptions were necessary. As Sadie had found that in 1960 the Bantu experienced a level of mortality which was similar to that shown by the Coloured population during 1946-51, it was decided to undertake a "reverse survival" or retropolation of the (reconstructed) Midlands Bantu from 1960 to 1951, by means of the survival factor schedules of the (national) Coloured population for the periods 1945-50 and 1940-45. Table 47 accordingly shows the retropolated and (reconstructed) census figures for the Midlands Bantu population in 1951, according to decennial age classification. (These had already been adjusted for a probable overenumeration in 1951, at the cost of the regional Coloured population. See the Appendix to Chapter I).

TABLE 47: BANTU - "RECONSTRUCTED" CENSUS AND PROJECTED POPULATION FIGURES MIDLANDS, 1951

Age Group	Males			Females		
	Census	Projection	Census Minus Projection	Census	Projection	Census Minus Projection
0- 9	35,720	31,590	4,130	35,810	33,410	2,400
10-19	24,580	16,750	7,830	24,760	20,440	4,320
20-29	13,100	13,220	- 120	15,060	14,540	520
30-39	9,780	10,430	- 650	11,270	12,160	- 890
40-49	8,220	8,770	- 550	8,710	8,770	- 60
50-59	6,150	6,730	- 580	6,280	6,720	- 440
60-69	3,640	3,640	-	3,600	3,600	-
70-79	1,770	1,770	-	1,760	1,760	-
80+	520	520	-	520	520	-
Total	103,480	93,420	10,060	107,770	101,920	5,850

For Bantu males, the reconstructed census total exceeded the corresponding projected figure by some 10,060 persons. For the ages 0-19 years the census showed a surplus of 11,960 persons over the projection, and for the ages 20-59 the census fell short of the projection by 1,900 persons, while the ages above 60 years were not included in the comparison. In view of the numerous uncertainties which attended these calculations, it was decided to disregard the apparent net in-migration which the figures in Table 47 suggest for certain age groups, of which there seems no practical evidence anyhow. The figure of 11,960 persons was thus taken to represent the extent of the net out-migration of Bantu males from the region during 1951-60. Relating this to the reconstructed figure for 1960, the age bracket 10-29 years therefore contained some 11,960 fewer males in 1960 than would have been the case without migration, other things being equal.

For Bantu females, the reconstructed census total exceeded the corresponding projected number for 1951 by some 5,850 persons. There was a census surplus of 7,240 persons for the age bracket 0-29 years, and a census deficit of 1,390 persons for the ages 30-59 years. Ages 60 years and older were again omitted from this comparison. As in the case of the male figures, it was decided to disregard the

rather implausible net in-migration suggested for certain age groups. For both sexes, the number thus concerned were in any case of a marginal order. The extent of the residual out-migration of Bantu females from the region was therefore taken to be represented by the figure of 7,240 persons. In other words, the age bracket 10-39 years of the 1960 reconstructed population contained some 7,240 fewer females than would, ceteris paribus, have been the case in the absence of migration.

On the basis outlined above, the total population loss through migration may have amounted to some 19,200 persons, or 8.2 per cent of the region's (average) Bantu population during 1951-60. There was thus an apparent average annual migrational loss of some 2,060 persons during this period, that is, at the rate of 0.9 per cent of the (average) population. Of the estimated residual migrants 62.3 per cent were males and 37.7 per cent females. It is not possible to make any very precise inferences about the age distribution of the surmised migrant body, beyond stating that its centre of gravity, for both sexes, appears to have been young persons of working age.

Although the Bantu population seemingly lost an absolutely greater number of persons through net migration during 1951-60 than the White and Coloured populations of the region, it experienced a significantly lower relative population loss in this manner than the other two race groups. Judging by the shape of the sub-regional Bantu population pyramids, Subregion I appeared to have been rather less affected by this process than subregions II and III. (See Chapter II, Figures 19-21) As in the case of the regional Coloured population, it was therefore the more established areas of settlement which apparently experienced the greatest migrational loss. The degree of male-selectivity appeared to have been considerably higher for the Bantu than for White and Coloureds, the Bantu migrants also showing a greater concentration among the younger working ages.

From the basic data employed in the above projection, it is possible to draw some conclusions, albeit of a conjectural nature, about the crude fertility and mortality levels of the regional Bantu population.[97] A regional number of 58,200 births for 1955-60 was reconstructed by the reverse-projection of the age group 0-4 in 1960. Similarly, the number of 46,840 regional births for 1951-55 was reconstructed by the reverse-projection of the age group 5-9 in 1960, pro-rated to the 1951 census data, thus yielding a total of 105,040 estimated births during the intercensal period 1951-60. Masculinity at birth appeared to have been 102 : 100.

The average annual regional crude birth rate for the period 1951-60 was thus estimated at 48.2 per 1,000 persons. The observed average annual population growth rate of 21.4 per 1,000 and the estimated net out-migration rate of 8.8 per 1,000, therefore suggest an average annual regional crude death rate of 18.0 during 1951-60.

For the period 1956-60 Sadie found the following values for the national Bantu population : crude birth rate: 42.6, crude death rate: 18.9, and national increase 23.7 per 1,000.[98] The suggested substantially higher level of regional crude fertility and the somewhat lower level of regional crude mortality may indeed approximate the actually prevailing state of affairs, seeing that in 1960 the estimated regional and national median age values were found to be 15.1 and 19.1 years, respectively. As with the Coloured population, regional net out-migration, coupled with a high level of fertility, appears to have brought about a demographic juvenescence of the Midlands Bantu population.

Calculated on the basis of the reconstructed census figures, the Midlands Bantu

population grew at the average annual rates of 1.0 per cent during 1946-51 and 2.1 per cent during 1951-60. As the latter growth rate was accompanied by an average annual net out-migration rate of 0.9 per cent, it may be inferred that the rate of net out-migration should have been more rapid during 1946-51, as was the case with the Coloured population of the region.

V Summary

Whites:

Although the crude level of mortality appears to be higher in the Midlands region than in South Africa as a whole, this state of affairs seems to be almost entirely due to a comparatively unfavourable regional age structure which has developed as a consequence of persistent net out-migration. On the whole, it therefore appears reasonable to regard the national age-specific mortality rates as a sufficiently close approximation of regional mortality too. Both the regional and national mortality levels have tended to be fairly stable during the years following the Second World War.

While there appeared to have been some increase in both regional and national fertility during the post-war period, this should be regarded as a short term phenomenon, that is, as a deviation from the long term trend of declining fertility. The absolute level of regional fertility was observed to be lower than the average national level. A reasonable explanation of this phenomenon would be the presence in the Midlands region of a significant number of unmarried females in the younger reproductive ages, who are studying at various educational institutions and therefore appear as "sterile" from the viewpoint of regional fertility. There are no good grounds for believing that a narrowly defined de jure Midlands childbearing population (that is, excluding the above-mentioned component) would in fact show an absolutely lower level of fertility than its national counterpart.

Crude fertility appeared comparatively low in individual districts with high median age values, while no significant correlation was found between crude mortality and median age. Demographic aging has therefore lowered fertility rather than raised mortality, which in turn may be expected to lead to further aging of the regional population.

The extent of net out-migration from the region has been considerable; the population loss caused in this manner during 1946-60 amounting to some 20 per cent of the region's (average) population. The greater part of the residual migrants appeared to be young workers who went to seek employment elsewhere. There has been some intertemporal deceleration in the rate of White population loss due to migration, mainly because of the growth of the educational institutions situated in Grahamstown. There appears in recent times to have been a marginally greater loss of females than males through net out-migration.

Coloureds:

The general post-war trend of Coloured mortality, both regional and national shows a downward tendency. In 1960 the absolute level of crude regional mortality exceeded the corresponding national level, but there was no significant difference between the regional and national standardised death rates. The greater youthfulness of the Midlands population may account for the observed difference in the crude death rates.

Regional and national crude birth rates were in 1960 approximately at the same level. But a comparison of more specialised fertility measures suggests that the Midlands fertility performance has been rising during the post-war years and that it by 1960 significantly exceeded the national level.

The estimated body of Coloured net out-migrants from the Midlands during 1946-60 amounted to almost 17 per cent of the (average) regional population. The rate of net out-migration was somewhat higher during 1946-51 than 1951-60, with a male surplus being indicated for both periods. Residual migrants were concentrated to a greater extent among the younger working ages than in the case of the Whites. In contrast with the Whites, net out-migration has not brought about an absolute population decline, which is mainly due to the high fertility of the Midlands Coloured population. Migration has thus led to juvenescence rather than aging.

Bantu:

Because of the deficiency and lack of accuracy of basic data, an assessment of the demographic properties of the Bantu population of the region remains a largely conjectural matter. Indirect estimates of crude vital rates suggest a close agreement between regional and national mortality levels, while the regional fertility level appears significantly higher than the national one.

Net out-migration during 1951-60 may have amounted to some 8 per cent of the region's (average) Bantu population. There was a pronounced male-selectivity of migration, and residual migrants appeared to belong overwhelmingly to the younger working ages. As with the Coloureds, migration, combined with high regional fertility, has led to demographic juvenescence.

Adjustments made in this chapter to post-war census data suggests the following revised geometric growth rates for the Coloured and Bantu populations of the Midlands region (the rates based on unadjusted data given in parentheses):

	1946-51	1951-60	1946-60
Coloureds	1.0 (1.8)	1.9 (2.2)	1.6 (2.1)
Bantu	1.0 (0.7)	2.1 (2.5)	1.8 (1.9)

All these growth rates are below their national counterparts, which may be expected in view of the continuous process of regional population loss through migration.

CHAPTER IV

ECONOMIC PROPERTIES OF THE POPULATION

This chapter is primarily concerned with some of the main properties of the labour force, that is, of the economically active section in the total population. All basic definitions used in this context were taken from the Population Census of 1960, where the economically active population was described as consisting of "employers, self-employed workers, employees and persons who stated that they were unemployed or were presumed to be unemployed".

In what follows, the structure of the labour force in the Cape Midlands region is related to the general South African situation chiefly in terms of the following threefold classification: industry divisions, major occupational groups and personal income. The respective totals yielded by these three classifications are not always in complete agreement with each other, the observed discrepancies being due to incomplete and inconsistent census returns, as well as the method of machine processing of data employed by the Department of Statistics. The Department did, however, point out that "these differences are in most cases insignificant and, therefore, unimportant". When dealing with personal income, in particular, persons who were classified as economically active, but did not report a positive income for the past twelve months, were excluded from the present tabulations. Their numbers very largely consisted of those members of the labour force who appeared to be unemployed.

In the 1960 Census industry is defined as the kind of establishment in which the person works, that is, the type of business or activity carried on by the employer. The basis of the classification by occupational groups is the nature of the work done, irrespective of the industry in which the occupation is pursued. The personal income concept applied to salary and wage earners is that of gross income, while the concept relevant to farmers, businessmen and professional men is that of net income. (These definitions are set out in greater detail in the relevant Census reports).

The discussion of the White and Coloured labour force is conducted, sequentially, in terms of (a) rates of economic activity, (b) industry divisions, (c) major occupational groups, and (d) personal income. In the case of the Bantu, section (d) is omitted because of the lack of comparable census data. The chapter is concluded with some general observations about the economic properties and implications of the region's population as a whole.

I White Labour Force

(a) Rates of Economic Activity

The relative extent to which the members of a population participate in economic activities may be indicated by various activity rates, the simplest of which is the crude activity rate, expressed as the percentage of all economically active persons in the total population. Table 48 accordingly gives the male, female and total crude activity rates for the Midlands and its constituent parts, as well as the three corresponding national rates for 1960. (For the calculation of these rates, the economically active population was taken as the sum of the workers in the different major occupational groups).

TABLE 48 : WHITES - CRUDE ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	49.1	9.8	28.9
Graaff-Reinet	42.5	15.2	28.3
Jansenville	54.2	11.6	33.4
Murraysburg	51.9	7.0	29.1
Steytlerville	58.7	8.9	33.3
Subregion I	48.1	12.5	29.9
Cradock	50.2	14.3	31.7
Maraisburg	55.3	8.7	31.6
Middelburg	53.1	15.7	35.5
Noupoort	55.0	10.2	32.7
Pearston	54.1	8.5	31.4
Somerset East	51.0	13.5	32.0
Steynsburg	55.5	8.1	29.8
Tarka	55.6	11.2	33.0
Subregion II	52.4	12.9	32.5
Adelaide	47.4	14.9	30.4
Albany	44.1	23.2	33.7
Alexandria	58.0	9.7	34.2
Bathurst	52.7	13.8	32.3
Bedford	56.5	11.8	32.4
Fort Beaufort	54.0	24.4	38.9
Stockenström	54.5	9.6	32.9
Victoria East	57.4	18.8	37.2
Subregion III	49.2	18.8	33.8
Midlands	50.1	15.3	32.5
South Africa	55.8	19.1	37.4

The male crude activity rate for the Midlands region as a whole (50.1 per cent was clearly below the corresponding national figure of 55.8 per cent. This disparit would appear to be the outcome of a variety of circumstances. The relatively greater extent of farming activity together with a smaller proportion of children to total population would, ceteris paribus, favour a comparatively high regional crude activity rate. But this would again be counteracted by a higher proportion of aged persons and the presence within the region of young people undergoing pre-work training. In the case of the average Midlands male crude activity rate the last of these factors would appear to have been of decisive importance, as the lowest

activity rates were observed in those magisterial districts where such educational and/or training institutions are situated. For example: Graaff-Reinet (42. 5), Albany (44. 1), Adelaide (47. 4), and Cradock (50. 2). The following districts had male crude activity rates higher than the average national figure: Steytlerville (58. 7), Alexandria (58. 0), and Victoria East (57. 4)

In the case of the female crude activity rates, no clear regional pattern emerged. The average regional rate of 15. 3 per cent was well short of the average national rate of 19. 1 per cent, but there was also some considerable interdistrict variation - from 7. 0 per cent for Murraysburg to 24. 4 per cent for Fort Beaufort. Unlike the case with the male activity rates, the districts with prominent educational institutions did not show exceptionally low female activity rates in the regional context. For the two sexes combined, only the district of Fort Beaufort had a crude activity rate (38. 9 per cent) in excess of the average national figure of 37. 4 per cent.

As the most important single determinant of the rate of economic activity is the age structure of the population,[99] it would be informative to examine a schedule of age-specific activity rates for the two sexes. This is, however, precluded by the lack of suitable regional data; for the same reason it is not feasible to construct any regional working life tables. It is, however, possible to calculate a regional "general activity rate" where the total number of economically active persons is expressed as a percentage in the population aged 15-64 years, that is, the "population of working ages" from which the bulk of the labour force is drawn. The corresponding schedule of general activity rates is reproduced in Table 49.

Of the regional male population of working ages, 85. 7 per cent were economically active, as compared to 91. 4 per cent on the national level. General activity rates of 100 per cent or more were found in the following districts: Steytlerville (105. 5), Victoria East (105. 4), Steynsburg (103. 8), Stockenström (101. 4), Pearston (100. 0), and Bedford (100. 0). With the exception of Victoria East, more than one-half of the male labour force in each of these districts were engaged in farming activities, compared to the regional average of about one-third, thus lending some support to the notion that in farming occupations a formal retirement age limit is often irrelevant. The lowest male general activity rates were again found in the districts providing important educational services, namely, Albany (69. 3), Adelaide (74. 6), Graaff-Reinet (77. 1), Middelburg (84. 3), and Cradock (85. 4).

As in the case of the female crude activity rates, no definite pattern became discernible when economic activity was related to the female population of working ages. The interdistrict female general activity rates varied from 41. 6 per cent for Fort Beaufort to 12. 6 per cent for Murraysburg, the regional mean of 25. 9 per cent being considerably below the national figure of 31. 5 per cent. While it may, for example, be shown that the comparatively low figure for Steynsburg (13. 1 per cent) is probably due to the presence of a youthful institutional group, this consideration - unlike with the regional male population - does not lend itself readily t meaningful generalisation in the present case. For example: Albany with the lowest male general activity rate in the region, had the second highest female rate (36. 5 per cent).

While it may therefore be generally concluded that the regional male participation in economic activities is below the national performance level mainly on account of the presence of a youthful pre-working population group, a variety of less obvious reasons would appear responsible for the comparative regional shortfall in the case of female workers. On the whole, districts with large absolute population totals tended to show greater female participation in the labour force, while those with a proportionately large rural population tended to lag behind.

TABLE 49 : WHITES - GENERAL ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	91.7	17.8	53.2
Graaff-Reinet	77.1	25.8	49.5
Jansenville	97.6	20.1	58.9
Murraysburg	92.6	12.6	52.1
Steytlerville	105.5	15.6	58.9
Subregion I	87.3	21.7	52.9
Cradock	85.4	24.7	54.3
Maraisburg	97.9	14.9	55.2
Middelburg	84.3	26.8	58.3
Noupoort	92.4	18.0	56.3
Pearston	100.0	14.5	55.9
Somerset East	92.0	23.4	56.6
Steynsburg	103.8	13.1	51.6
Tarka	98.4	19.8	58.4
Subregion II	89.9	22.2	55.9
Adelaide	74.6	24.7	49.2
Albany	69.3	36.5	53.1
Alexandria	98.7	16.5	58.2
Bathurst	99.8	24.8	59.4
Bedford	100.0	22.4	59.4
Fort Beaufort	93.2	41.6	66.6
Stockenström	101.4	15.7	57.4
Victoria East	105.4	32.9	66.6
Subregion III	81.4	31.1	56.0
Midlands	85.7	25.9	55.3
South Africa	91.4	31.5	61.4

(b) Industry Divisions

Following the Census classification, Table 50 compares, percentagewise, the industrial divisions of the Midlands labour force with those of South Africa as a whole, the main metropolitan areas, and the other urban/rural "Mix".[100] A graphical comparison of the industrial structure of the regional, as against the national, economically active population is given in Figure 26. (In all the figures

which follow in this chapter black and striped rectangles respectively indicate Midlands surpluses and deficiencies vis-à-vis the national labour force).

TABLE 50 : WHITES - INDUSTRY DIVISIONS (PER CENT) 1960

Industry Divisions	Midlands		South Africa		Metropolitan		"Mix"	
	Males	Females	Males	Females	Males	Females	Males	Females
1. Agriculture	25.6	1.0	10.0	0.3	0.8	0.1	26.9	0.8
2. Mining	0.1	-	5.1	0.2	5.2	0.2	5.0	0.2
3. Manufacturing	2.5	0.4	14.6	3.7	18.0	4.9	8.4	1.4
4. Construction	7.3	0.1	6.1	0.2	5.6	0.2	7.0	0.1
5. Electricity	0.6	-	0.9	0.1	0.9	0.1	0.8	-
6. Commerce	12.1	7.7	13.1	9.1	14.2	10.8	11.1	6.0
7. Transport	10.8	1.3	8.7	1.4	9.1	1.4	8.0	1.3
8. Services	14.4	11.5	13.1	9.5	14.0	10.4	11.5	7.9
9. Unemployed & unspecified	2.7	1.9	2.6	1.2	2.8	1.3	2.3	1.1
Persons (both sexes)	19,486		1,151,052		743,826		407,226	

(Note: In this and other tabulations, a dash (-) does not represent nil but rather a number which is less than 0.1 per cent of the total).

1. Agriculture, forestry, hunting and fishing:

One of the outstanding differences between the national and regional industry divisions was the prominent place which the above category occupied in the latter. While 10.3 per cent (males 10.0, females 0.3) of South Africa's total labour force were working in agriculture and related industries, the corresponding regional figure was no less than 26.6 per cent (males 25.6, females 1.0). There was a small Midlands deficiency in this division vis-à-vis the other urban/rural "Mix", which may be attributed to the extensive type of farming in the Midlands region. (The "Mix" had a proportionately larger White urban population than the Midlands region. See Table 13.)

2. Mining and quarrying:

This industry division was virtually unrepresented in the Midlands, in consequence of the region's lack of economically workable mineral resources.

3. Manufacturing:

Another outstanding difference between the industrial structure of the Midlands, on the one hand, and the Republic as a whole on the other, was found in the relative position of the manufacturing industry. On the national level manufacturing represented the most important single source of work, providing

FIG.26: INDUSTRY DIVISIONS [per cent] - WHITES 1960

unemployment for 18.3 per cent (males 14.6, females 3.7) of the country's White labour force. Its significance was greatest in the metropolitan areas, with the Midlands being conspicuously underdeveloped in this respect, only 2.9 per cent (males 2.5, females 0.4) of the region's labour force being employed in manufacturing. These figures were also clearly below those for the "Mix". This regional deficiency was, of course, the corollary of the large relative surplus which the local agricultural industry showed vis-à-vis the national employment pattern.

4. Construction:

The construction industry was a considerably more significant source of secondary employment in the Midlands than manufacturing. The percentage of the local labour force in this industry (7.4) also exceeded the corresponding figure for the other three working populations in Table 50, which would suggest that construction activity is not always closely related to local economic performance. Construction methods in larger centres are also bound to be more capital-intensive, thus requiring relatively less labour.

5. Electricity, gas, water and sanitary services:

This sector represented a comparatively minor source of employment, its relative significance being somewhat less for the Midlands than the country in general.

6. Commerce (including wholesale and retail trade, motor trade, financial institutions, and fixed property dealings):

This combined industry division employed a relatively large section of all four tabulated working populations, both male and female. The Midlands figures fell short of the corresponding national employment levels, but exceeded those for the "Mix". The motor trade appeared somewhat more prominently in the regional than the national context.

7. Transport storage and communication:

In the above industry division there was an overall Midlands surplus of 2.0 per cent as against the national employment level, although the regional females were slightly under-represented. Much of these activities is pursued by the South African Railways Administration and the Post Office, whose local employment policies are not always directly related to local profitability.

8. Services (including government, business, recreational and other services):

Along with commerce, this industry division represented an important source of tertiary employment for both male and female workers. Its rather heterogeneous composition may suggest some superficially paradoxical impressions, such as the apparent similarity between the otherwise structurally divergent Midlands and metropolitan areas with regard to prevailing employment opportunities. It is probably a reasonable inference that public services, not strictly dependent on the profit motive, tend to predominate in a region such as the Midlands, with business-oriented services more prominent in the metropolitan areas. On the whole, this industry division was an appreciably more important employer in the Midlands than in the case of the "Mix" and the national labour force.

9. Unemployed and unspecified:

The comparative number of persons falling into this category was not

significantly large by contemporary standards. Moreover, seeing that this joint group had a positive component of "unspecified", but employed, persons, it appears that all the working populations in Table 50 did experience high levels of employment. For South Africa as a whole, the unemployment figure "proper" was 3.1 per cent of the total labour force (males 2.1, females 1.0). Comparable regional data were not available.

(c) Major Occupational Groups

Table 51 (see page 115) gives the 1960 percentage distribution, by major occupational groups, of the Midlands labour force, compared to that of South Africa as a whole, the main metropolitan areas and the other urban/rural "Mix". The respective structure of the regional and national labour force, according to this classification, is also represented and compared graphically in Figure 27 (see page 116).

1. Professional, technical and related worker:

This category featured somewhat more prominently in the regional than the national context, especially in the case of female workers. The chief explanation for this would seem to be the important place which the teaching and nursing professions have in this occupational group. (These professions are carried on in the industry division "services"). The The Midlands surplus was more pronounced relative to the occupational composition of the "Mix".

2. Administrative, executive and managerial worker:

Here there was a Midlands male deficiency and female surplus vis-à-vis the Republic as well as the "Mix", although not on a very substantial scale. Most of these occupations are found in commerce, manufacturing and the service industry, which, taken together, were under-represented in the Midlands region. This occupational group manifested itself most prominently on the metropolitan level.

3. Clerical worker:

Clerical occupations also appeared to have some metropolitan bias and represented the major source of employment for female workers, especially as typists. This group was clearly under-represented,for both sexes, in the Midlands region, when compared to the national situation. In relation to the occupational structure of the "Mix", the Midlands region had a slight male deficiency and female surplus, which may reflect a ready substitutability between certain male and female workers (clerks, cashiers) within the clerical occupational group.

4. Sales worker (including working proprietor in wholesale and retail trade):

The proportions of both male and female workers in this occupational group were in fairly close alignment with one another for the Midlands and South Africa as a whole, with a small regional male deficiency and female surplus. Both sexes featured somewhat less prominently in the "Mix" than in the Midlands labour force.

TABLE 51 : WHITES - MAJOR OCCUPATIONAL GROUPS (PER CENT) 1960

Major Occupational Groups	Midlands		South Africa		Metropolitan		"Mix"	
	Males	Females	Males	Females	Males	Females	Males	Females
1. Professional, technical and related worker	7.6	6.3	7.4	4.5	8.1	4.8	6.2	4.0
2. Administrative, executive and managerial worker	3.6	0.6	4.7	0.5	5.0	0.5	3.9	0.4
3. Clerical worker	7.1	7.3	11.4	12.6	13.3	15.7	8.0	6.9
4. Sales worker	5.2	3.4	5.4	3.1	5.8	3.4	4.6	2.6
5. Farmer, fisherman, lumberman and related worker	25.5	0.9	9.9	0.3	0.8	-	26.5	0.8
6. Miner, quarryman and related worker	0.1	-	2.7	-	2.8	-	2.5	-
7. Worker in transport and communication	7.8	0.9	5.5	0.7	5.3	0.6	5.9	0.8
8. Craftsman, production worker and labourer	13.5	0.5	22.1	1.6	23.9	2.1	18.8	0.8
9. Service worker	3.3	2.1	3.7	1.4	4.1	1.4	3.0	1.4
10. Unemployed and unspecified	2.3	1.7	1.5	0.9	1.4	0.9	1.6	1.0
Persons (both sexes)	19,484		1,151,449		743,823		407,626	

FIG.27: MAJOR OCCUPATIONAL GROUPS [per cent] - WHITES 1960

5. Farmer, fisherman, lumberman and related worker:

The relative numbers employed in these occupations coincided almost perfectly with those obtained from the industrial division "Agriculture, forestry, hunting and fishing" in the previous section. In the virtual absence of fishermen, lumbermen, etc., farmers and farmworkers therefore represented by far the most important single occupational group within the Midlands labour force. Although there were few females actively at work in farming, they did represent a relatively more important group in the regional than the national context. The slight Midlands deficiency of farming activities in relation to the labour force of the "Mix", was previously associated with the extensive (mostly wool) farming methods prevalent within the region.

6. Miner, quarryman and related worker:

In the effective absence of mining activity in the Midlands, the regional employment provided by these occupations was of a negligible order. It may be noted, in passing, that the number of workers in this occupational group in the rest of the country was about one-half of all those employed in the mining sector as such, on account of the many non-mining professions present within this industry.

7. Worker in transport and communication:

Likewise, albeit to a lesser extent, the number of workers in the above occupational group fell short of those employed in the seemingly related industry division "Transport, storage and communication", for the same reason. These occupations represented a comparatively important source of work (for male persons) in the Midlands, and the region also showed a clear surplus for this group in comparison with the other working populations in Table 51. With the exception of road transport, the majority of these occupations are carried on outside the private sector, which again stresses the importance of the public authorities as an employer of labour in the Midlands region.

8. Craftsman, production worker and labourer:

Most of these occupations are in the case of White workers skilled jobs in secondary industry, and as a group they represented the largest component of the national labour force, employing 23.7 per cent of all economically active persons (males 22.1, females 1.6). In view of the concentration of South Africa's secondary industries in a limited number of localities, this occupational group also revealed a certain metropolitan bias. On the regional level, by contrast, only 14 per cent of the Midlands labour force (males 13.5, females 0.5) were engaged in these activities, thus again emphasising the under-representation of manufacturing in the local context. There was also a marked regional deficiency in this category relative to the occupational structure of the "Mix".

9. Service, sports and recreation worker:

This category represents a rather limited group within the entire spectrum of tertiary occupations, the remainder having been classified under separate headings above. The present group includes certain public servants, particularly members of the police force, as well as caretakers, cleaners, barbers, hairdressers, hotel workers etc., While Midlands male service workers were somewhat under-represented in comparison with the national and metropolitan labour force, local female service workers again featured prominently enough to yield an approximately equivalent overall state of employment. For both sexes, the services in this group absorbed relatively more Midlands workers

than in the case of the "Mix", the observed differences, however, not being very great.

10. Unemployed and unspecified:

On the basis of the present occupational classification, these persons formed a smaller proportion of the economically active population than according to the previous industrial classification. This does, of course, suggest that census returns were more complete with regard to the occupations of the respondents than for the industries in which they worked. Although this group was somewhat over-represented in the Midlands, there is not enough evidence or reason to infer the existence of a regional unemployment problem.

(d) Personal Income

While certain occupations tend to show a more or less pronounced industrial bias, they may also be associated with different levels of remuneration. Insofar as this is the case, it may be reasoned on a priori grounds, that the occupation structure of the labour force should also determine its level and distribution pattern of income. On the other hand, the same occupations, and especially different professions within the same broad occupational group, do not necessarily carry the same remuneration in all circumstances, and consequently the level of income, and its distribution pattern, for a specific region may not be directly related to its industrial and occupational structure.

To facilitate an assessment of the respective importance of these two sets of factors with regard to the nature of personal income within the Midlands region, in relation to the rest of the country. Table 52, (see page 119) gives the 1960 male and female incomes earned within each major occupational group in the urban and rural areas of South Africa. (Corresponding data are not available for the region itself).

The highest median incomes for both urban and rural males were found in the administrative (etc.) and professional (etc.) occupational groups, with a considerable income differential in favour of urban workers, especially in the former case. Third-and-fourth-ranking for urban male workers were the incomes earned by sales workers and miners, this order being reversed for rural workers - as was the case with earnings in professional (etc.) and administrative (etc.) occupations. Clerical workers and craftsmen (etc.) occupied the fifth and sixth positions, respectively, in both urban and rural areas. In the urban areas, the seventh, eighth and ninth income rankings were, respectively, represented by workers in transport and communication, farmers (etc.), and service workers; while farmers, service worker and workers in transport and communication occupied these respective positions in the rural areas. Only in the case of farmers (etc.) was the rural median income higher than its urban counterpart.

Female median income figures tended to be a good deal lower than those for male workers. There was also an income differential generally in favour of urban workers, except in the case of farming and professional (etc.) occupations. Apart from the primary occupations, administrative (etc.) and professional (etc.) jobs carried the highest remuneration, while service workers showed the lowest median income in both urban and rural areas.

TABLE 52 : WHITES - MEDIAN INCOME (RAND) BY MAJOR OCCUPATIONAL GROUPS - SOUTH AFRICA, 1960

Major Occupational Groups	Males		Females	
	Urban	Rural	Urban	Rural
1. Professional, technical and related worker	2,710	2,440	1,080	1,130
2. Administrative, executive and managerial worker	3,390	2,450	1,470	1,040
3. Clerical worker	1,800	1,620	930	800
4. Sales worker	2,460	1,860	720	670
5. Farmer, fisherman, lumberman and related worker	1,440	1,510	780	1,100
6. Miner, quarryman and related worker	2,350	2,000	1,410	1,330
7. Worker in transport and communication	1,560	1,460	740	680
8. Craftsman, production worker and labourer	1,730	1,540	720	650
9. Service worker	1,490	1,470	660	590

The figures in Table 52 therefore lend support to the notion that the level and distribution of personal income for a particular region within South Africa should be affected both by the occupational (and industrial) structure of its labour force, and by any special circumstances in the region itself with regard to the level of remuneration attached to the various jobs in a specific occupational group.

Table 53 (see page 120) sets out the percentage distribution of male and female personal incomes, together with the respective median income figures for 1960, for South Africa as a whole, the main metropolitan areas, the "Mix" and its urban and rural constituents, the Midlands region and its urban and rural constitutents, as well as the three subregions within the Midlands. The regional and national patterns of personal income distribution are also reproduced and compared graphically in Figure 28 (see page 121).

The national median income figures, R1,840 for male and R890 for female workers, being lower than those for metropolitan areas, exceeded those for the "Mix" and its two constituent parts, as well as the Midlands region taken as a whole. While urban Midlands incomes were lower than those for the urban section of the "Mix", the rural median incomes found in the Midlands (males R1,900; females R840) compared favourably with the other figures in Table 53. The male income figure was higher than the national average, being only slightly exceeded by the corresponding metropolitan figure, while the rural female median was somewhat below the national average, but higher than in the rural section of the "Mix". For the three subregions, Subregion III yielded the lowest male and the highest female median income figures.

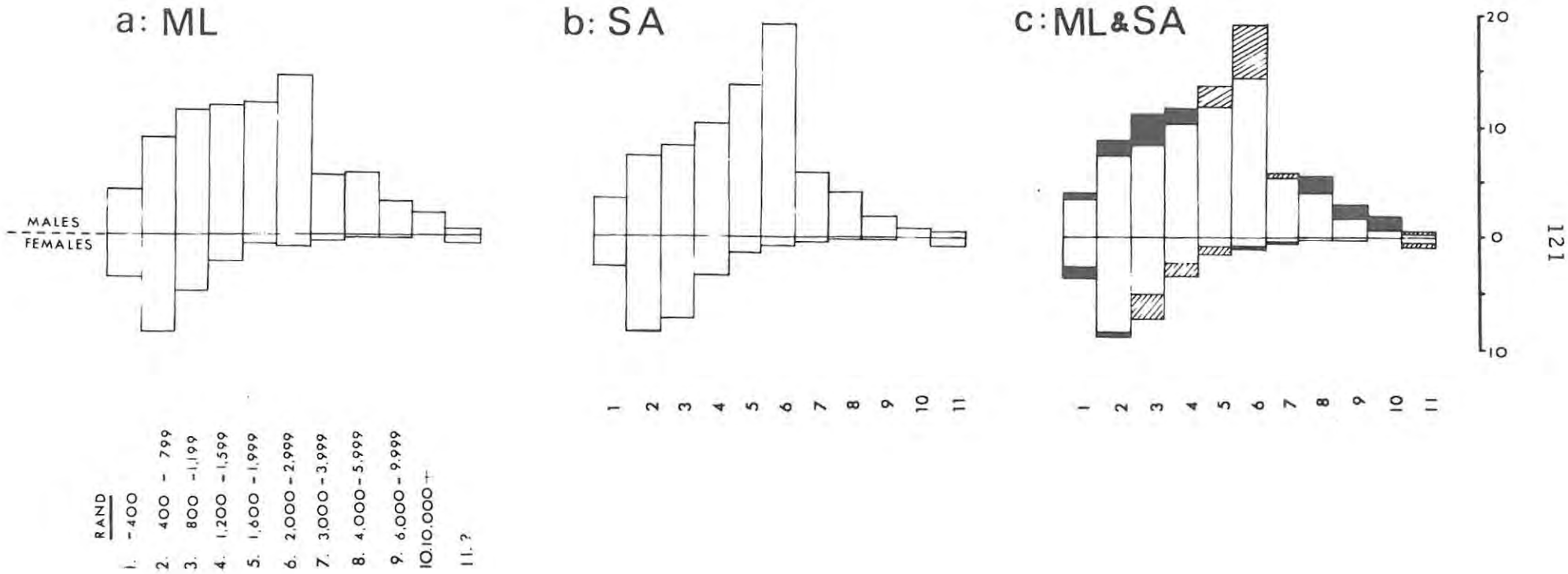
TABLE 53 : WHITES - PERSONAL INCOME DISTRIBUTION (PER CENT) AND MEDIAN INCOME (RAND) OF ECONOMICALLY ACTIVE POPULATION,* 1960

Income (Rand)	(i) South Africa		(ii) Metropolitan		(iii) Mix - Total		(iv) Mix - Urban		(v) Mix - Rural		(vi) Midlands-Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
-400	3.5	2.6	2.5	2.7	5.5	2.5	3.2	3.3	8.6	1.5	4.0	3.7
400 - 799	7.3	8.3	6.1	9.0	9.6	7.1	7.4	10.0	12.7	3.1	8.7	8.6
800 - 1199	8.3	7.1	6.8	8.6	11.2	4.3	10.1	6.0	12.6	2.1	11.0	5.0
1200 - 1599	10.1	3.5	9.3	4.5	11.8	1.7	12.0	2.3	11.4	1.0	11.5	2.2
1600 - 1999	13.5	1.4	13.7	1.7	13.2	0.8	14.4	1.0	11.6	0.5	11.8	0.9
2000 - 2999	19.0	0.8	20.2	1.0	16.6	0.5	18.1	0.6	14.7	0.4	14.2	1.0
3000 - 3999	5.7	0.2	5.8	0.2	5.6	0.1	5.2	0.1	6.1	0.2	5.4	0.3
4000 - 5999	4.0	0.1	3.8	0.1	4.4	0.1	3.2	0.1	6.1	0.1	5.5	0.1
6000 - 9999	1.9	0.1	1.6	-	2.3	-	1.4	-	3.5	0.1	3.0	0.1
10000+	0.9	-	0.7	-	1.2	-	0.4	-	2.3	-	2.0	-
Unspecified	0.7	0.8	0.6	1.0	0.7	0.6	0.5	0.8	1.0	0.4	0.6	0.6
Persons (both sexes)	1105325		718572		386753		223177		163576		18308	
Median income	1840	890	1920	930	1690	760	1740	750	1600	820	1720	750

Income (Rand)	(vii) Midlands-Urban		(viii) Midlands - Rural		(ix) Subregion I		(x) Subregion II		(xi) Subregion III	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
-400	3.3	4.8	5.6	1.5	5.5	4.2	3.0	3.6	4.2	3.5
400 - 799	7.5	11.7	11.0	2.2	9.1	7.9	8.2	7.7	8.9	9.7
800 - 1199	10.6	6.8	11.8	1.2	11.7	4.4	11.5	4.1	10.2	6.0
1200 - 1599	11.9	2.9	10.6	0.7	9.9	1.6	12.0	1.8	11.8	2.8
1600 - 1999	12.8	1.1	9.7	0.4	11.0	0.8	13.1	0.5	11.1	1.3
2000 - 2999	14.3	1.2	13.9	0.6	14.4	1.0	15.4	0.6	13.0	1.4
3000 - 3999	4.3	0.2	7.5	0.3	5.5	0.1	5.5	0.1	5.1	0.4
4000 - 5999	3.4	0.1	9.8	0.2	6.3	0.1	5.7	0.1	5.0	0.2
6000 - 9999	1.3	-	6.5	0.1	3.2	0.1	3.4	0.1	2.5	0.1
10000+	0.4	-	5.4	0.1	2.2	-	2.5	-	1.5	0.1
Unspecified	0.5	0.9	0.9	0.2	0.5	0.4	0.6	0.6	0.7	0.8
Persons (both sexes)	12326		5982		3696		6855		7757	
Median income	1660	740	1900	840	1720	710	1780	710	1670	790

* Excluding persons who earned no income

FIG.28: PERSONAL INCOME DISTRIBUTION [per cent]-WHITES 1960



Insofar as it is possible to generalise in this context, it would appear that the respective shares of the relatively highly remunerated administrative and professional occupational groups, as such, did not have a decisive impact on the regional/national income differential. This could also be said of the relatively poorly paid service occupational group. Craftsmen (etc.) were severely under-represented and farmers substantially over-represented in the Midlands, and although the national median income of craftsmen (etc.) exceeded that of farmers, it would be erroneous to conclude this to be the root cause of the lower overall Midlands income level. On the contrary, the comparatively high rural median income figure for the Midlands is clearly attributable to earnings by the farming profession. Of the rural Midlands male labour force 69 per cent were classified as "employers", as against 59 per cent for rural South Africa as a whole. Consequently the presence of a relatively large corps of independent farmers, coupled with high farming incomes, should have served to raise - rather than to depress - the overall income level in the Midlands region. As this level is still below the national one, it follows that incomes within the more urban-oriented occupational groups must have been lower in the Midlands than the Republic as a whole. The urban median income, of both sexes, was also lower in the Midlands than in the urban part of the "Mix", the difference being quite substantial in the case of male workers. It would therefore appear that the main determinant of the income level in the Midlands region has been the different lower remuneration earned within the same occupational groups, vis-à-vis the rest of the country, rather than the occupational structure of the local labour force as such.

The graphical comparison of the regional and national income groups distribution patterns in Figure 28 shows that, on the whole, distribution was rather less unequal in the Midlands than the Republic. In both cases, the modal income group for male workers was R2,000 - R2,999, but the income groups both leading to and away from the mode were less steeply graded in the Midlands, with the exception of group R3,000 - R3,999. The modal group itself also featured more prominently in the national (19.0 per cent) than the regional (14.2 per cent) male income distribution. For female workers, however, the distribution pattern was somewhat more unequal in the Midlands than South Africa as a whole.

These observations appear to reinforce what was inferred previously, namely, that Midlands male incomes were in places pushed up by comparatively high farming earnings, and in places again being pulled down by the comparatively low earnings from the more urban-oriented professions. In the case of Midlands female workers the relatively small rural economically active population (10.7 per cent of the region's total female labour force, of whom approximately one-half were classified as "employers"), could not achieve the same "smoothing" effect, but served instead to accentuate the difference in personal incomes within the region. (In the case of the males, the relatively highly remunerated rural workers formed some 39 per cent of the region's total male labour force.)

The general impression that in the Midlands rural income earners may be considered to have been relatively well off in comparison with their urban counterparts, may be further elucidated - and somewhat modified - by distinguishing between employer - and employee - earnings. These (median income) data are given in Table 54, (see page 123) which also shows the ratio of employer - to employee - earnings for the geographical units under discussion.

TABLE 54 : WHITES - MEDIAN INCOME (RAND) BY WORK STATUS, 1960

Geographical Unit	Males			Females		
	Employer	Employee	Ratio	Employer	Employee	Ratio
South Africa	2, 150	1, 810	1. 19	1, 160	880	1. 32
Metropolitan areas	2, 880	1, 880	1. 53	1, 180	930	1. 27
Other urban areas	2, 230	1, 710	1. 30	1, 100	750	1. 47
Rural areas	1, 740	1, 500	1. 16	1, 150	780	1. 47
Midlands - urban	2, 250	1, 600	1. 39	1, 140	730	1. 56
Midlands - rural	2, 640	1, 300	2. 03	1, 640	700	2. 34
SR I - urban	2, 140	1, 560	1. 37	960	700	1. 37
SR I - rural	2, 680	1, 070	2. 50	1, 860	560	3. 32
SR II - urban	2, 360	1, 600	1. 48	1, 240	720	1. 72
SR II - rural	3, 200	1, 390	2. 30	1, 730	670	2. 58
SR III - urban	2, 170	1, 600	1. 36	1, 200	780	1. 54
SR III - rural	2, 110	1, 300	1. 62	1, 520	770	1. 97

From the statistics above it appears that the comparatively high regional rural income level was indeed the outcome of high incomes earned by independent farmers, rather than by all those who worked on the land, the respective male and female employer/employee earnings ratios being 2. 03 and 2. 34. For both sexes, the relevant Midlands employee-earnings figures were lower than the average South African rural employee-incomes. The absolute level of urban male employer-earnings in the Midlands (R2, 250) was somewhat higher than in the "other urban" areas of the Republic (R2, 230), but lower than in the metropolitan areas (R2, 880). Urban male employee-earnings in the Midlands (R1, 600) did not compare favourably with the corresponding figures for the "other urban" (R1, 710) and metropolitan (R1, 880) areas of South Africa.

A broadly similar picture emerged for female earnings, with the exception that the Midlands rural employer-earnings figure exceeded all the other female employer-incomes in Table 54.

Assuming that prospective migrants are in general more strongly motivated by income differences between communities than within a given community itself, there thus appeared to exist an economic foundation for workers of both sexes to migrate away from the Midlands region, especially to the Metropolitan areas of South Africa - except in the case of rural employers. Making the same exception, Subregion I showed the lowest earnings level in the overall regional context, and also experienced the highest rate of net out-migration. (See Table 35).

II Coloured Labour Force

(a) Rates of Economic Activity

Table 55 (See page 124) gives the male, female and total crude activity rates

for the Coloured population of the Midlands and its constituent parts, as well as for South Africa as a whole in 1960. (In this chapter no allowance has been made for a possible underenumeration of Coloureds and Bantu in the 1960 Census).

TABLE 55 : COLOUREDS CRUDE ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	47.0	22.2	34.8
Graaff-Reinet	41.5	21.2	31.1
Jansenville	48.8	20.2	34.7
Murraysburg	47.9	22.3	35.1
Steytlerville	47.1	14.1	30.9
Subregion I	44.9	20.6	32.7
Cradock	45.3	19.0	31.9
Maraisburg	46.5	15.3	31.6
Middelburg	45.8	22.9	34.5
Noupoort	47.5	26.2	36.3
Pearston	44.8	17.0	30.9
Somerset East	45.1	19.1	32.0
Steynsburg	45.9	19.3	32.7
Tarka	50.4	20.7	35.1
Subregion II	45.7	20.0	32.7
Adelaide	45.2	14.0	29.4
Albany	45.9	16.7	31.1
Alexandria	49.9	10.4	31.0
Bathurst	54.1	32.4	43.2
Bedford	45.2	15.2	30.1
Fort Beaufort	54.3	30.8	42.5
Stockenström	39.1	8.1	23.1
Victoria East	46.0	27.4	37.8
Subregion III	46.8	17.2	32.0
Midlands	45.7	19.6	32.5
South Africa	50.0	23.5	36.7

The regional rates in Table 55 were somewhat below the national level for both sexes. In general, Coloured crude activity rates appeared to be lower than those for the White population group. A rather different picture emerges, however, when Coloured economic activity is related to the population of working ages (15-64 years) in Table 56.

TABLE 56 : COLOUREDS - GENERAL ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	102.0	47.2	74.8
Graaff-Reinet	92.9	44.9	67.5
Jansenville	101.9	43.0	73.2
Murraysburg	101.5	50.6	76.8
Steytlerville	103.6	32.1	68.9
Subregion I	98.2	44.3	70.8
Cradock	98.6	40.6	68.7
Maraisburg	109.4	33.3	71.6
Middelburg	99.1	46.7	72.3
Noupoort	100.5	53.1	75.1
Pearston	99.2	38.4	69.2
Somerset East	98.0	41.0	69.2
Steynsburg	102.7	45.0	74.7
Tarka	102.1	41.6	70.8
Subregion II	99.3	42.6	70.4
Adelaide	100.3	29.0	62.9
Albany	93.9	34.7	64.3
Alexandria	97.2	21.3	61.9
Bathurst	101.3	63.8	82.9
Bedford	100.9	32.6	65.8
Fort Beaufort	97.5	53.1	74.7
Stockenström	91.4	16.8	50.5
Victoria East	74.4	47.3	63.0
Subregion III	95.6	34.7	64.9
Midlands	98.0	41.4	69.2
South Africa	97.0	45.5	71.1

The Coloured male and female general activity rates in the Midlands were, respectively, somewhat higher and lower than their national counterparts. The male difference of one per cent may not be significant, while the female difference (of 4.1 per cent) would seem to indicate a more effective utilisation of their labour potential on the national than the regional level. There was again considerably greater intraregional variation of female than of male activity rates. In the case of

both sexes, participation in economic activities by the population of working ages was greater for Coloureds than for Whites. The most pertinent explanation for this observed difference would appear to be the longer period spent by White persons in pre-work education and training. For the two sexes together, respectively 69.2 and 71.1 per cent of the regional and national Coloured population aged 15-64 years were economically active in 1960.

(b) Industry Divisions

Table 57 gives the percentage industrial divisions of the Coloured labour force of the Midlands, South Africa as a whole, the main metropolitan areas and the other urban/rural "Mix" for 1960. The industrial structure of the regional and national labour force is also set out on a comparative basis in Figure 29 (See page 127).

TABLE 57 : COLOUREDS - INDUSTRY DIVISIONS (PER CENT) 1960

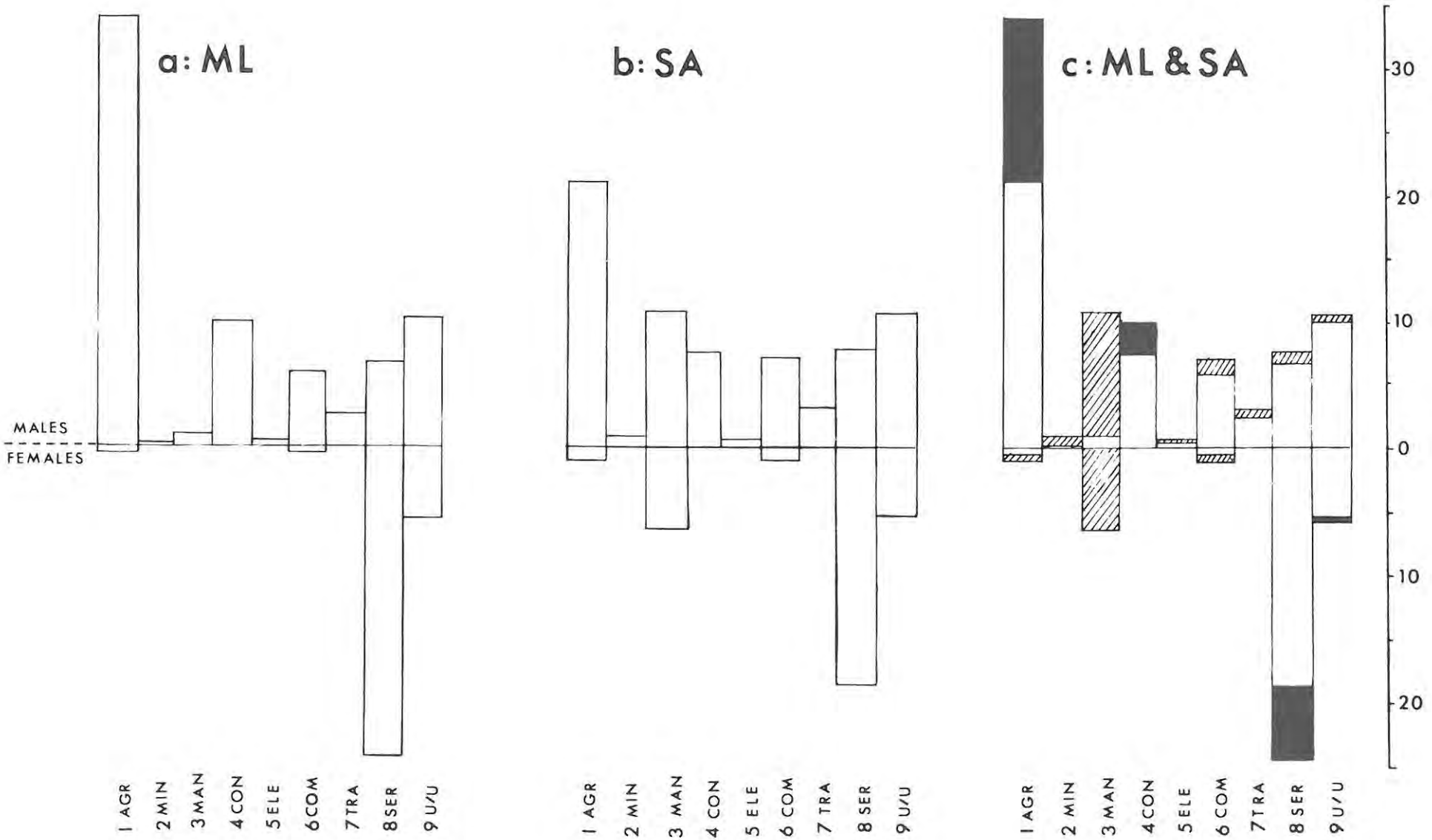
Industry Divisions	Midlands		South Africa		Metropolitan		"Mix"	
	M	F	M	F	M	F	M	F
1. Agriculture	35.5	0.5	20.8	1.0	2.6	0.2	35.6	1.6
2. Mining	0.1	-	0.8	-	0.3	-	1.2	-
3. Manufacturing	0.9	-	10.5	6.4	16.9	11.9	5.2	1.8
4. Construction	9.8	-	7.2	-	6.9	-	7.4	-
5. Electricity	0.4	-	0.5	-	0.8	-	0.3	-
6. Commerce	5.9	0.5	7.0	1.0	9.2	1.6	5.3	0.5
7. Transport	2.3	-	3.0	-	4.1	0.1	2.0	-
8. Services	6.7	24.1	7.7	18.5	8.6	16.5	6.9	20.0
9. Unemployed and unspecified	10.0	5.6	10.4	5.2	13.1	7.3	8.3	3.6
Persons (both sexes)	25,387		553,939		249,475		304,464	

1. Agriculture, forestry, hunting and fishing:

   This industry division emerged as the most important single source of employment for both regional and national Coloured male workers, rather more so in the case of the former. Altogether 34.0 per cent (males 33.5, females 0.5) of the Midlands total labour force were engaged in the above pursuits, as compared to 21.8 per cent (males 20.8, females 1.0) for South Africa as a whole. The relative male participation in farming activities was approximately the same for the Midlands and the "Mix", with female participation more pronounced in the case of the latter. In general, agriculture represented a rather more important source of employment for the Coloured than the White economically active population.

2. Mining and quarrying: As in the case of the regional White labour force, mining and quarrying in the Midlands was a virtually negligible source of employment for Coloured workers. On the national level too, less than one

FIG.29: INDUSTRY DIVISIONS (per cent) – COLOUREDS 1960



per cent of the Coloured labour force belonged to this industry division.

3. Manufacturing:

The Midlands Coloured labour force was very conspicuously under-represented in manufacturing industry. While 16.9 of the national working population were employed in manufacturing, the corresponding regional figure was only 0.8 per cent, which was also a good deal less than the employment figure for the "Mix" (5.2 per cent). In juxtaposing White and Coloured participation in agricultural and manufacturing activities, a broadly similar picture emerged for the Midlands vis-à-vis the rest of South Africa, with Coloured agricultural participation being rather higher and their manufacturing participation somewhat lower than in the case of White workers.

4. Construction:

This industry was a comparatively important one in the regional context, employing 9.8 per cent of the labour force, as compared to 7.2 per cent for South Africa as a whole. In this respect there was again a strong similarity between the industrial structure of the Midlands White and Coloured labour force.

5. Electricity, gas, water and sanitary services:

This industry division employed less than one per cent of all the working populations set out in Table 57.

6. Commerce (including wholesale and retail trade, motor trade, financial institutions, and fixed property dealings):

The relative significance of this industry division was approximately the same for the Midlands and the "Mix". The regional participation fell short of the national level, the statistics in Table 57 suggesting that commerce as a source of employment tended to show a metropolitan bias. This was in broad conformity with the industrial structure of the White working population, although in the latter case commerce as such appeared a more important source of employment, especially for female workers.

7. Transport, storage and communication:

Unlike the case with the White labour force, Coloured workers in this industry division were under-represented in the Midlands, relative to South Africa as a whole. The above industry division also appeared to have a degree of metropolitan bias. Of the total Midlands labour force 2.3 per cent were working in transport, storage and communication, the corresponding figure for the "Mix" being 2.0 per cent.

8. Services (including government, business, recreational and other services):

This industry division was the second most important source of employment for Coloured workers in general, being especially prominent in the case of females. Of the national labour force 26.2 per cent (males 7.7, females 18.2) were working in the service industry, the overall participation level in the Midlands being 30.8 per cent (males 6.7, females 24.1) - somewhat higher than in the case of the "Mix". Apart from the persons classified as "unemployed and unspecified", this industry division was the only really significant source of employment for Coloured females in the Midlands region. It may be taken for granted that by far most of these service workers were employed in domestic services. Although regional statistics

are not available, some 82% of all Coloured females in this division were in domestic service in South Africa as a whole, the corresponding figure for Coloured males being 27 per cent.

9. Unemployed and unspecified:

Of the total national Coloured labour force 15.6 per cent (males 10.4, females 5.2) were classified under this heading. The unemployment rate "proper" appeared to have been somewhat lower, namely, 13.4 per cent (males 8.6, females 4.8), but it should still be regarded as rather high when compared to that for the White population (3.1 per cent). The unemployment rate "proper" is not known for the other working populations in Table 57, but if the national figure is to serve as a guide, the Midlands region did not appear to have experienced Coloured unemployment of an exceptionally high order. The relative number of persons in this joint category was in fact highest in the Metropolitan areas (20.4 per cent).

(c) Major Occupational Groups

The 1960 percentage distribution of the Coloured labour force, by major occupational groups, is given for the Midlands, South Africa, the main metropolitan areas and the "Mix" in Table 58 (See page 130). Figure 30 (See page 131) represents and compares graphically the occupational structure of the regional and national economically active populations.

1. Professional, technical and related worker:

This occupational group was slightly under-represented on the regional as against the national level. Presumably because of the relatively specialised training associated with these occupations, Coloured participation in them was well below that in the White labour force.

2. Administrative, executive and managerial worker:

The Coloured share in this occupational group was almost negligible, being 0.3 per cent in the case of the Midlands and the "Mix", and 0.2 per cent for the national and metropolitan labour force.

3. Clerical worker:

Only 0.2 per cent of the Midlands Coloured labour force were clerical workers, as compared to 1.6 per cent for South Africa as a whole. Clerical occupations appeared to show some metropolitan bias, as in the case of the White working population. In comparative terms, this occupational group was yet another minor source of employment for Coloured workers in general.

4. Sales worker (including working proprietor in wholesale and retail trade):

Showing some metropolitan bias, this occupational group was again less significant for regional than national Coloured workers, and also less significant for Coloured than White workers in general. There were also certain important differences between the occupational structure of White and Coloured workers within this group as such. For example : While 22 per cent of all South African Whites in this category were returned as working proprietors in commerce, the corresponding Coloured rate was only 11 per cent. For the Midlands region the respective White and Coloured figures were 32 and 12 per cent.

TABLE 58 : COLOUREDS - MAJOR OCCUPATIONAL GROUPS (PER CENT) 1960

Major Occupational Groups	Midlands		South Africa		Metropolitan		"Mix"	
	M	F	M	F	M	F	M	F
1. Professional, technical and related worker	1.2	1.0	1.3	1.2	1.3	1.6	1.3	0.9
2. Administrative, executive and managerial worker	0.3	-	0.2	-	0.2	-	0.3	-
3. Clerical worker	0.2	-	1.2	0.4	2.3	0.8	0.3	0.1
4. Sales worker	0.6	0.1	1.4	0.4	2.5	0.6	0.6	0.3
5. Farmer, fisherman, lumberman and related worker	34.8	0.5	22.1	1.0	3.5	0.2	37.4	1.6
6. Miner, quarryman and related worker	-	-	-	-	-	-	0.1	-
7. Worker in transport and communication	2.1	-	3.9	-	5.9	0.1	2.2	-
8. Craftsman, production worker and labourer	21.6	0.4	28.1	6.5	35.1	11.9	22.4	2.2
9. Service worker	1.8	23.6	3.1	18.1	3.9	16.0	2.5	19.8
10. Unemployed and unspecified	7.2	4.6	6.4	4.4	7.8	6.2	5.2	2.8
Persons (both sexes)	25,836		553,572		250,341		303,231	

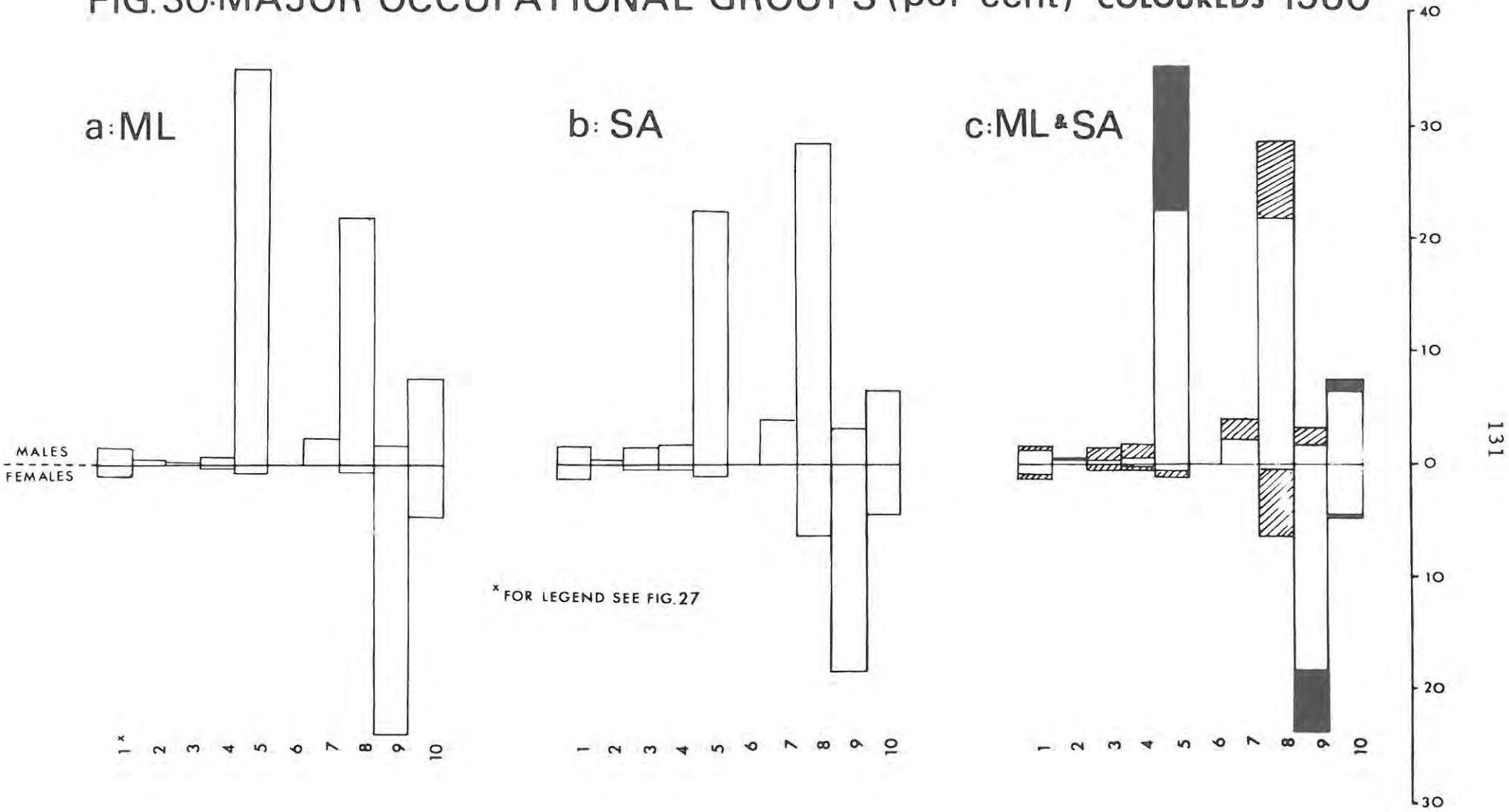
5. Farmer, fisherman, lumberman and related worker:

In view of the industrial structure of the Midlands Coloured working population, this category emerged automatically as by far the largest occupational group, employing 35.3 per cent (males 34.8, females 0.5) of the region's total labour force. Although farming (etc.) was also a major source of employment for Coloured workers in South Africa as a whole, the corresponding national figure was rather lower, namely, 23.1 per cent (males 22.1, females 1.0). Agricultural predominance was also one of the outstanding features of the region's White labour force. But again there were significant differences between the White and Coloured persons active within the group as a whole. In the case of the Whites, 87 per cent of all those concerned were returned as "farmer, market gardener, etc." and 12 per cent as "farmworker etc.". For the Coloured working population the respective figures were 3 and 93 per cent. (These are national figures, regional data not being available).

6. Miner, quarryman and related worker:

Of the working populations in Table 58, only in the case of the "Mix" did this occupational group reach 0.1 per cent of the total labour force.

FIG. 30: MAJOR OCCUPATIONAL GROUPS (per cent) - COLOUREDS 1960



x FOR LEGEND SEE FIG. 27

7. Worker in transport and communication:

As a source of Coloured employment this group featured more prominently in the metropolitan areas (6.0 per cent) than in the rest of South Africa, with the Midlands participation rate (2.1 per cent) the lowest of all those tabulated.

8. Craftsman, production worker and labourer:

This occupational group represented the most important single source of work for Coloured persons in South Africa, employing 34.6 per cent (males 28.1, females 6.5) of the country's total labour force. In the Midlands it was, however, a clear second to the farming group, employing 22.0 per cent (males 21.6, females 0.4) of the region's labour force, the main reason for the regional deficiency being the underdeveloped state of local manufacturing industry. These occupations revealed a clear metropolitan bias. Again the apparent similarity between the occupational structure of the Midlands White and Coloured working populations turned out to be a somewhat spurious one, seeing that of the male workers in this group only 11 per cent were classified as "labourer" in the case of the White, as compared to 60 per cent in the case of the Coloureds. The national data also indicated a higher degree of working skills for the White population, the proportion of White and Coloured labourers in this occupational group being 5 and 57 per cent, respectively.

9. Service, sports and recreation worker:

Both nationally and especially regionally, this occupational group represented by far the most important source of employment for Coloured female workers. It was noted in the previous section that the overwhelming majority of them were in domestic service. For South Africa as a whole, 93 per cent of the Coloured females in this occupational group were returned as "housekeeper, domestic servant, etc.", the corresponding White figure being 56 per cent.

10. Unemployed and unspecified:

As census returns appeared to have been more complete in the case of the occupational than the industrial classification, the figures in the present case were somewhat lower than the corresponding ones in the previous section. The general rate of Coloured unemployment nonetheless appeared to have been comparatively high, although not significantly worse in the regional than the national context.

In the light of the foregoing, the South African Coloured labour force could be generally characterised as one lacking in diversity, with male workers mainly concentrated in agricultural, manufacturing and constructional jobs, to a large extent as relatively unskilled workers. Female workers were predominantly employed in domestic service. An inordinately large section of the total labour force appeared to be out of regular employment. This lack of diversity was even more conspicuous in the Midlands region, where the employment scene was dominated mostly by (male) farmworkers and (female) domestic servants.

(d) Personal Income

Table 59 gives the 1960 Coloured median incomes, for the urban and rural areas of South Africa, of both male and female workers in each of the major occupational groups.

TABLE 59 : COLOUREDS - MEDIAN INCOME (RAND) BY MAJOR OCCUPATIONAL GROUPS - SOUTH AFRICA, 1960

Major Occupational Groups	Males		Females	
	Urban	Rural	Urban	Rural
1. Professional, technical and related worker	1,400	1,380	640	630
2. Administrative, executive and managerial worker	610	380	400	200
3. Clerical worker	650	330	460	230
4. Sales worker	410	240	350	230
5. Farmer, fisherman, lumberman and related worker	170	150	80	80
6. Miner, quarryman and related worker	360	220	500	150
7. Worker in transport and communication	480	290	310	250
8. Craftsman, production worker and labourer	380	240	390	150
9. Service worker	350	100	120	50

In no case did rural median income exceed the corresponding urban figure and, as a rule, Coloured male incomes were a good deal higher than female incomes. In urban areas, the average White male and female incomes exceeded those for Coloured workers 4.8 and 3.5 times, respectively; the differential in the rural areas was rather greater, namely, 7.4 and 6.1 times, respectively. The smallest White/Coloured differential was found in the professional (etc.) occupational group, being on average 1.9/1.0 for males and 1.8/1.0 for females. The largest differentials were those for farming (males 9.3/1.0; females 11.8/1.0) and service (males 9.5/1.0; females 8.9/1.0) incomes. These figures suggest that Coloured workers have the smallest comparative disadvantage in those occupations where incomes are determined by statutory means rather than by market forces.

Coloured professional (etc) incomes were without exception well above all other incomes, followed by clerical and administrative (etc.) incomes, with farming and service incomes having the lowest rankings. It may consequently be inferred, ceteris paribus, that a region with a comparatively large Coloured rural population and one in which farming and service occupations predominate, is also bound to have a relatively low general income level coupled with a comparatively unequal distribution of personal incomes.

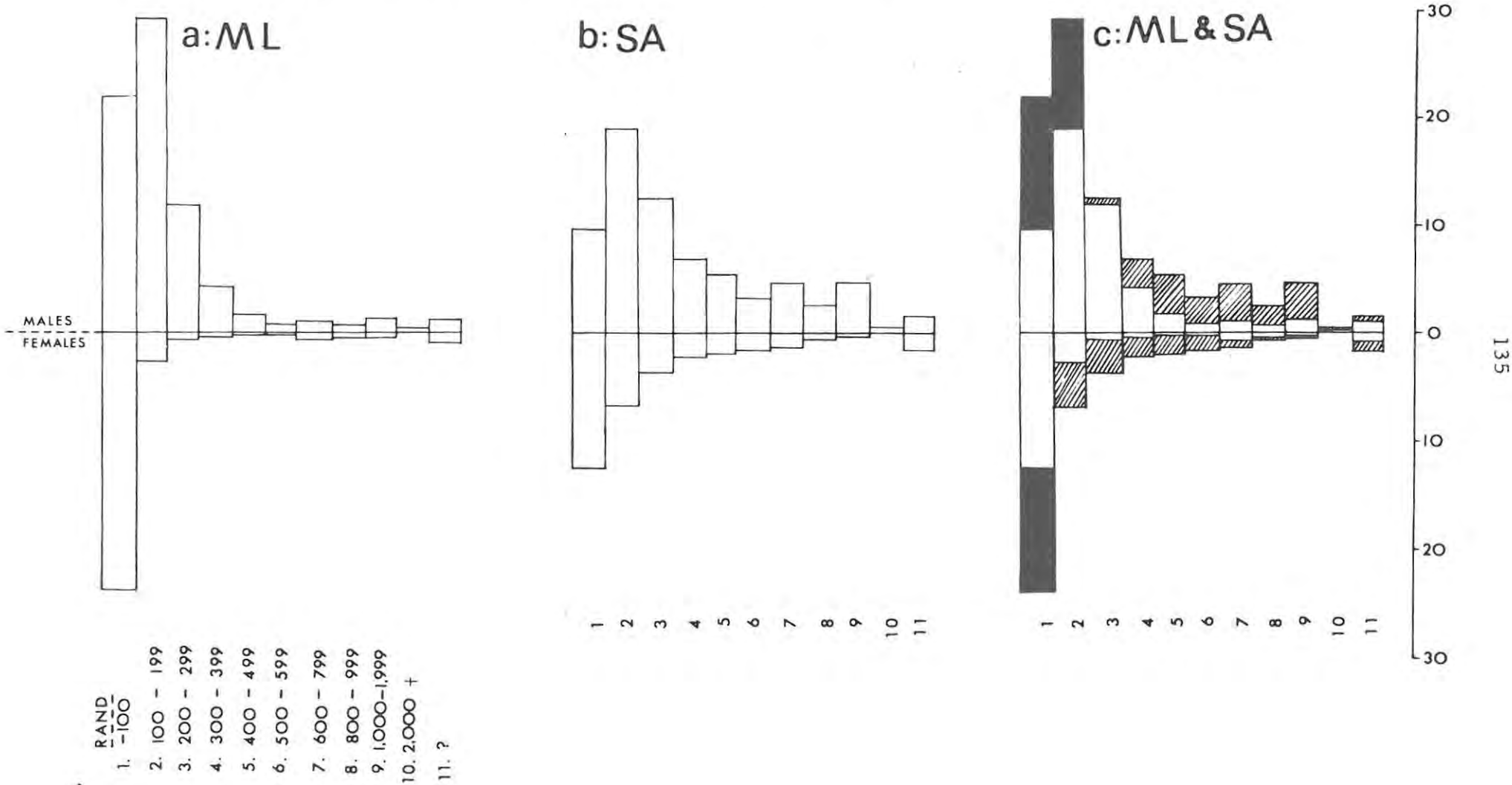
The actual distribution of Coloured personal incomes, expressed percentagewise, and the relevant median income figures are given in Table 60 for the working populations of South Africa, the metropolitan areas, the "Mix" as a whole and its urban and rural parts, and the Midlands together with its constituent parts in 1960. The regional/national income distribution patterns are compared in Fig. 31.

TABLE 60 : COLOUREDS - PERSONAL INCOME DISTRIBUTION (PER CENT) AND MEDIAN INCOME (RAND) OF ECONOMICALLY ACTIVE POPULATION,* 1960

Income (Rand)	(i) South Africa		(ii) Metropolitan		(iii) Mix-Total		(iv) Mix-Urban		(v) Mix-Rural		(vi) Midlands-Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
-100	9.5	12.2	3.5	5.8	14.3	17.3	10.8	19.5	16.9	15.7	21.4	23.3
100 - 199	18.8	6.7	4.9	8.7	29.7	5.1	17.2	7.4	39.3	3.3	28.7	2.5
200 - 299	12.1	3.5	8.7	6.1	14.7	1.5	14.4	2.7	14.8	0.5	11.5	0.5
300 - 399	6.8	2.0	9.2	3.8	5.0	0.5	7.2	1.1	3.4	0.1	4.1	0.2
400 - 499	5.2	1.9	8.4	3.9	2.6	0.3	4.4	0.5	1.3	0.1	1.6	0.1
500 - 599	3.1	1.4	5.3	3.0	1.4	0.2	2.5	0.3	0.6	-	0.6	0.1
600 - 799	4.6	1.2	8.0	2.2	1.9	0.3	3.4	0.7	0.8	0.1	0.8	0.4
800 - 999	2.5	0.4	4.5	0.6	1.0	0.2	1.7	0.4	0.4	0.1	0.6	0.2
1000 - 1999	4.6	0.3	8.0	0.4	1.9	0.1	3.2	0.3	0.8	-	1.1	0.2
2000+	0.4	-	0.6	-	0.3	-	0.5	-	0.1	-	0.3	-
Unspecified	1.4	1.5	2.0	2.4	0.9	0.8	0.8	0.9	1.0	0.7	1.0	0.7
Persons (both sexes)	473,756		208,959		264,797		115,111		149,686		21,541	
Median income	250	150	460	270	180	80	230	90	160	70	150	60

Income (Rand)	(vii) Midlands - Urban		(viii) Midlands-Rural		(ix) Subregion I		(x) Subregion II		(xi) Subregion III	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
-100	16.3	27.9	25.5	19.6	15.2	25.6	24.9	25.1	27.4	15.0
100 - 199	21.8	3.6	34.3	1.7	32.1	2.4	28.0	2.4	23.1	3.2
200 - 299	11.1	0.9	11.8	0.1	14.2	0.4	8.5	0.4	11.9	0.8
300 - 399	5.4	0.5	3.1	-	4.1	0.1	3.4	0.3	5.7	0.3
400 - 499	2.6	0.2	0.8	-	1.4	0.1	0.5	0.1	2.3	0.1
500 - 599	1.0	0.2	0.2	-	0.3	0.1	0.6	0.1	1.2	0.2
600 - 799	1.6	0.7	0.3	0.1	0.6	0.2	0.8	0.5	1.4	0.5
800 - 999	1.1	0.3	0.1	-	0.3	0.1	0.5	0.1	1.2	0.3
1000 - 1999	1.8	0.3	0.5	0.1	0.9	0.2	0.9	0.2	2.0	0.2
2000+	0.5	-	0.1	-	0.2	-	0.3	-	0.4	-
Unspecified	0.9	1.0	1.0	0.5	0.8	0.6	0.9	0.7	1.5	1.1
Persons (both sexes)	9,652		11,889		8,848		8,479		4,214	
Median Income	170	60	140	60	160	60	140	60	150	70

FIG. 31: PERSONAL INCOME DISTRIBUTION (per cent)—COLOUREDS 1960



The expectation expressed above is largely confirmed by the observed statistics. Metropolitan male and female median incomes, R460 and R270, respectively, were well above the corresponding national figures of R250 and R150. These in turn exceeded the overall Midlands male and female income figures of R150 and R60, respectively. The latter were also eclipsed by the corresponding (total) "Mix" median incomes of R180 and R80. Urban incomes in the Midlands were clearly lower than those for the "Mix", but there was, on the whole, fairly close agreement between the rural income figures given in Table 60. The observed subregional income differentials within the Midlands were not very great either.

Generally speaking, it does appear that the level of personal income of Coloured workers in the Midlands was to a far greater extent determined by their occupational structure than in the case of the region's White labour force. Income differences within individual occupational groups did admittedly have some influence (to the detriment of the Midlands), but this was not a decisive one. Personal incomes were also less unevenly distributed on the regional than the national level. In the Midlands 75.9 per cent of all income recipients earned less than R200 in 1960, as compared to 47.2 per cent for South Africa as a whole. The comparatively low level of regional income and its observed distribution pattern thus reflected an imbalanced occupational structure dominated by jobs with low levels of industrial skill (farmworker, labourer, domestic servant), which may in turn be related to a somewhat distorted industrial structure in which the agricultural and service industries predominated. A more diverse industrial and occupational composition of the labour force may therefore be expected to raise Coloured income levels in general and also to bring about a more varied distributional pattern. Such a state of affairs already prevailed to a large extent in the metropolitan areas of South Africa.

Table 61 sets out the median incomes of Coloured male and female employers and employees for South Africa, the metropolitan, other urban and rural areas within the Republic, as well as the urban and rural areas within the Midlands region in 1960, also giving the relevant employer/employee income ratios.

One of the seemingly curious features of the statistics below is that in the metropolitan areas the incomes of both male and female Coloured employees exceeded those of employers. In the case of female workers, this state of affairs was also found for South Africa as a whole and the "other urban" areas. Apart from the consideration that Coloured employers often operate relatively small-scale enterprises which are not necessarily profitable, this seemingly curious phenomenon should also be related to the fact that the term "employer" includes self-employed persons as well as family workers.

With two subregional exceptions (where the absolute numbers of employers were too small for meaningful generalisation), the Coloured employer/employee differentials tended to be less significant than in the case of White incomes. From the viewpoint of relative income positions within a given community, Coloured employers in the Midlands were somewhat more advantageously placed than those in other parts of South Africa. But apart from the fact that these employers were but a small proportion of the total labour force (males 4.6 and females 0.7 per cent of their respective Midlands totals), the absolute differences between employer-incomes rendered the Metropolitan areas even relatively more attractive for Coloured than for White employers. This consideration applied a fortiori to Coloured employees, whose metropolitan median income was 2.7 times higher than that found in the urban part of the Midlands. Similar tendencies have also been observed for other regions within the Republic.[101]

TABLE 61 : COLOUREDS - MEDIAN INCOME (RAND) BY WORK STATUS, 1960

Geographical Unit	Males			Females		
	Employer	Employee	Ratio	Employer	Employee	Ratio
South Africa	270	250	1.08	120	150	0.80
Metropolitan areas	430	460	0.93	180	270	0.67
Other urban areas	240	230	1.04	80	90	0.89
Rural areas	180	160	1.13	80	70	1.14
Midlands - urban	220	170	1.29	90	60	1.50
Midlands - rural	160	140	1.14	80	60	1.33
SR I - urban	190	160	1.19	60	60	1.00
SR I - rural	170	160	1.06	350	60	5.83
SR II - urban	230	170	1.35	100	60	1.67
SR II - rural	160	120	1.33	50	50	1.00
SR III - urban	260	190	1.37	270	80	3.38
SR III - rural	140	110	1.27	70	60	1.17

It may therefore be concluded that the basic economic justification for out-migration from the Midlands, especially to the metropolitan areas of South Africa, is even much stronger for the Coloured than the White workers of the region. To the extent that migration may be regarded as motivated by differences in income levels, the fact that Coloured net out-migration rates in the Midlands have been below those for White persons, suggests a relatively strong element of structural inertia to be present among the region's Coloured population.

III Bantu Labour Force

(a) Rates of economic activity

The 1960 Bantu male, female and total crude activity rates for the Midlands and its constituent parts, as well as for South Africa, appear in Table 62.

The average regional crude male activity rate was well below its national counterpart. The immediate explanation for this would appear to be the greater youthfulness of the Midlands population, whose median age in 1960 was 15.1 years, as against 19.1 for the South African Bantu population as a whole. As with the regional Coloured population, the process of net out-migration of persons of working ages has itself contributed towards this discrepancy. The lowest crude activity rates were observed in Subregion III, which had the largest Bantu population in the Midlands and also the largest proportion living in rural areas. In contrast with White and Coloured males, rural Bantu males tend to have a much lower rate of participation than urban males, the average national rates for 1960 being 45.8 and 71.8 per cent, respectively. (In the case of South African Bantu females, respectively 10.1 and 30.3 per cent of those living in rural and urban areas were economically active in 1960).

TABLE 62 : BANTU - CRUDE ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	49.6	23.1	36.8
Graaff-Reinet	44.9	24.6	34.3
Jansenville	45.3	20.5	32.6
Murraysburg	60.6	27.3	46.1
Steytlerville	52.3	20.8	37.3
Subregion I	47.2	23.2	35.1
Cradock	42.2	21.2	31.3
Maraisburg	44.2	20.2	31.5
Middelburg	50.1	19.8	35.0
Noupoort	45.5	23.4	33.8
Pearston	41.6	18.7	29.7
Somerset East	43.0	19.0	30.8
Steynsburg	41.1	23.9	31.9
Tarka	44.0	19.7	31.1
Subregion II	44.0	20.6	31.9
Adelaide	39.9	16.3	26.9
Albany	46.1	20.3	32.5
Alexandria	45.2	13.1	29.0
Bathurst	46.1	25.9	35.2
Bedford	41.0	15.4	27.5
Fort Beaufort	44.0	21.3	31.8
Stockenström	42.0	14.9	27.0
Victoria East	31.9	11.4	20.8
Subregion III	42.9	18.1	29.7
Midlands	43.5	19.2	30.7
South Africa	55.4	15.5	35.6

The total crude activity rate for the Midlands Bantu (30.7 per cent) was also lower than the corresponding national figure (35.6 per cent) in spite of the comparatively greater participation of regional females in economic activities.

Table 63 relates Bantu participation in the labour force to the population aged 15-64 years.

TABLE 63 : BANTU - GENERAL ACTIVITY RATES (PER CENT) 1960

Geographical Unit	Males	Females	Total
Aberdeen	97.9	42.9	73.8
Graaff-Reinet	93.5	51.2	71.6
Jansenville	98.6	44.6	70.6
Murraysburg	100.9	56.7	84.0
Steytlerville	101.2	36.7	76.3
Subregion I	96.6	48.9	72.9
Cradock	95.3	45.2	68.5
Maraisburg	105.5	43.8	71.3
Middelburg	99.5	40.3	70.2
Noupoort	94.1	47.7	69.4
Pearston	98.7	41.8	68.3
Somerset East	97.4	40.8	67.7
Steynsburg	103.0	50.1	72.6
Tarka	98.8	40.5	66.6
Subregion II	98.1	43.3	68.9
Adelaide	99.9	34.5	61.2
Albany	101.5	40.4	67.9
Alexandria	104.6	26.9	63.1
Bathurst	104.7	49.4	72.5
Bedford	98.8	33.2	62.3
Fort Beaufort	89.3	38.8	60.8
Stockenström	100.9	30.5	59.7
Victoria East	76.9	23.1	45.5
Subregion III	97.6	36.1	62.9
Midlands	97.7	38.9	65.3
South Africa	98.5	28.4	64.3

The general activity rates in Table 63 give a somewhat different impression of the Bantu employment situation from that obtained from the crude activity rates in Table 62. The average regional and national general activity rates for Bantu males, 97.7 and 98.5 per cent, respectively, were now in fairly close agreement, while the rate for local females (38.9 per cent) was rather more substantially above the corresponding national figure (28.4 per cent). On the whole, female activity rates between magisterial districts varied a good deal more than male activity rates. The exceptionally low male figure of 76.9 per cent for the district of Victoria East was seemingly influenced by the important educational institutions situated there.

Although the average regional general activity rate for Bantu females was not quite up to the corresponding Coloured female level (41.4 per cent), it did exceed the national Bantu female rate by some 10 per cent. A number of factors appear to be responsible for this discrepancy. The Bantu's economic organisation in the Midlands is less traditional than in the homelands beyond it, thus allowing greater female participation in gainful economic pursuits. Out-migration from the region has lowered Bantu masculinity in the population aged 15-64 years to 82.2 per cent as compared to 105.2 for South Africa as a whole. Seeing that the Midlands has also experienced net out-migration of Coloured workers of both sexes, these circumstances may therefore also have acted to draw a greater proportion of Bantu females into the local labour force. Intra regionally, female participation was comparatively low in Subregion III, whose absolutely large Bantu population may have served to limit employment opportunities there. In addition to its relatively larger rural Bantu population, the eastern section of Subregion III also forms part of the traditional Bantu homelands.

(b) Industry Divisions

Table 64 gives the percentage distribution of the economically active Bantu population of the Midlands, South Africa, the main metropolitan areas and the "Mix", according to 1960 industry divisions. The regional and national industry divisions are also reproduced graphically in Figure 32.

1. Agriculture, forestry, hunting and fishing:

Of the region's total labour force 43.7 per cent (males 38.8, females 4.9) were engaged in the agricultural sector. In the case of male workers this exceeded the national figure by 6.8 per cent, with the regional and national female proportions being equal. As in the case of the Coloureds, by far most of the Bantu agricultural workers were farmworkers rather than independent farmers. For South Africa as a whole 72 per cent of the Bantu in agriculture were returned as "farmworkers" and 27 per cent as farmers. The majority of the latter should be found in the traditional Bantu areas, a consideration which affects the Midlands region but marginally. Agriculture employed 55.7 per cent of the "Mix" labour force (males 48.2, females 7.5), including the bulk of traditional Bantu agriculturists.

2. Mining and quarrying:

This industry division was the second most important source of employment for Bantu males (the majority of whom were foreign workers) in South Africa, but its contribution may be considered as negligible in the Midlands region.

TABLE 64: BANTU - INDUSTRY DIVISIONS (PER CENT) 1960

Industry Divisions	Midlands		South Africa		Metropolitan		"Mix"	
	M	F	M	F	M	F	M	F
1. Agriculture	38.8	4.9	32.0	4.9	2.0	0.1	48.2	7.5
2. Mining	0.3	-	14.1	-	24.7	-	8.3	-
3. Manufacturing	0.5	-	7.5	0.4	14.6	0.8	3.7	0.2
4, Construction	6.8	-	4.1	-	4.9	-	3.8	-
5. Electricity	0.6	-	0.7	-	1.2	-	0.4	-
6. Commerce	3.5	0.2	4.6	0.2	8.5	0.4	2.5	0.2
7. Transport	1.7	-	1.8	-	3.1	-	1.1	-
8. Services	5.8	22.1	7.9	13.2	12.7	16.7	5.4	11.3
9. Unemployed and unspecified	9.2	5.5	5.7	2.7	5.6	4.8	5.8	1.6
Persons (both sexes)	74, 955		3, 890, 028		1, 358, 153		2, 531, 875	

3. Manufacturing:

Only 0.5 per cent of the regional labour force were working in manufacturing, as against 7.9 per cent on the national level. Manufacturing was especially prominent in the metropolitan areas; for the Midlands it also lagged behind its relative position in the "Mix".

4. Construction: As for the other two race groups, construction was the most important source of secondary employment for the Midlands Bantu. This sector also featured more prominently in the case of the Midlands than the other working populations in Table 64.

5. Electricity, gas, water and sanitary services:

The contribution of this industry division to Bantu employment was not generally significant; only in the metropolitan areas did its share in the labour force exceed one per cent.

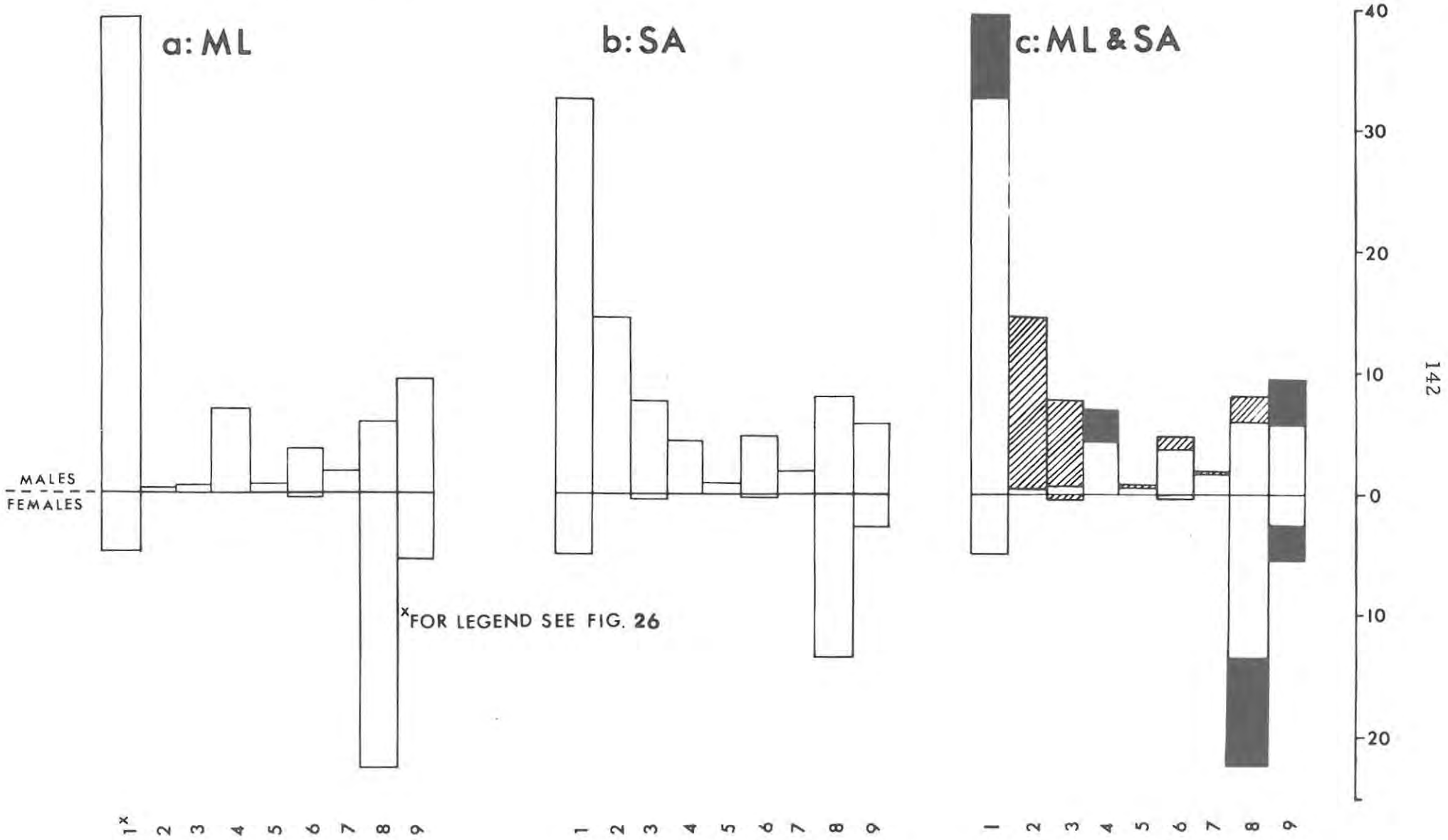
6. Commerce (including wholesale and retail trade, motor trade financial institutions, and fixed property dealings):

Although somewhat more prominent than in the "Mix", Bantu employment in Midlands commerce was below the national level. Of the regional Bantu who belonged to this division as a whole, 25 per cent were returned as working proprietors in trade, which was somewhat higher than the national Bantu figure of 21 per cent, and considerably above the regional Coloured figure of 11 per cent.

7. Transport, storage and communication:

This sector employed 1.7 per cent of the regional Bantu labour force. As with Coloured male workers, this industry division showed some metropolitan bias.

FIG.32: INDUSTRY DIVISIONS (per cent) - BANTU 1960



[x] FOR LEGEND SEE FIG. 26

8. Services (including government, business, recreational and other services):

The service industry employed 27.9 per cent of the Midlands economically active Bantu (males 5.8, females 22.1) and, apart from agriculture, formed the only significant source of work for Bantu females. Because of the female contribution, this industry division featured more prominently on the regional than the national level. Some 90 per cent of all South African Bantu females falling within this category were employed in domestic service, the corresponding rate for male workers being 40 per cent. (Separate regional figures are not available).

9. Unemployed and unspecified:

The percentage of those belonging to this category was somewhat lower for the Midlands Bantu than Coloured labour force. But the regional Bantu figures (males 9.2 per cent, females 5.5 per cent) were well above the corresponding national rates (males 5.7 per cent, females 2.7 per cent), which suggests that Bantu unemployment was a greater problem in the regional than the national context. Of all the Bantu who were classified as "unemployed and unspecified" in South Africa, 7.2 per cent of the total labour force appeared to be "unemployed" rather than "unspecified". (A comparable unemployment rate "proper" is not available for the Midlands).

By any standard, the industrial structure of the Midlands Bantu labour force reflects an acute lack of diversification. Excluding those who were classified as "unemployed and unspecified", some 84 per cent of the region's working population were employed in the agricultural and service industries, that is, mainly in farm labour and domestic service. Although the national economically active Bantu also showed a strong concentration in these industries, diversification was generally somewhat more advanced than on the regional level.

(c) Major Occupational Groups

The 1960 percentage distribution of the Bantu labour force, by major occupational groups, is given for the Midlands, South Africa, the metropolitan areas and the "Mix" in Table 65. Figure 33 represents and compares graphically the occupational structure of the regional and national economically active populations.

1. Professional, technical and related worker:

Here the Midlands share, for both males and females, was slightly in excess of those for the other working populations in Table 65. This presumably stresses the importance of the teaching and nursing professions in the regional context; these two professions together accounted for 77 per cent of all South African Bantu in this occupational group.

2. Administrative, executive and managerial worker:

The contribution of this group was almost negligible from the viewpoint of Bantu employment.

3. Clerical worker:

This occupational group appeared to show some metropolitan bias, but was

another rather minor source of work for the Bantu.

TABLE 65 : BANTU - MAJOR OCCUPATIONAL GROUPS (PER CENT) 1960

Major Occupational Groups	Midlands		South Africa		Metro-politan		"Mix"	
	M	F	M	F	M	F	M	F
1. Professional, technical and related worker	0.9	0.9	0.6	0.7	0.4	0.8	0.7	0.6
2. Administrative, executive and managerial worker	0.1	-	0.1	-	0.1	-	0.2	-
3. Clerical workers	0.1	-	0.5	-	0.9	0.1	0.2	-
4. Sales worker	0.4	-	0.7	0.1	1.0	0.2	0.5	0.5
5. Farmer, fisherman, lumberman and related worker	40.3	4.9	33.0	5.0	3.0	0.1	49.0	7.5
6. Miner, quarryman and related worker	-	-	-	-	-	-	-	-
7. Worker in transport and communication	1.1	-	1.6	-	3.3	-	0.7	-
8. Craftsman, production worker and labourer	14.4	0.2	31.5	0.6	53.6	0.9	19.8	0.4
9. Service worker	2.0	22.0	5.6	12.7	10.1	16.2	3.1	10.9
10. Unemployed and unspecified	7.9	4.7	4.8	2.5	4.7	4.5	4.9	1.4
Persons (both sexes)	74,955		3,889,746		1,358,249		2,531,497	

4. Sales worker (including working proprietor in wholesale and retail trade):

These professions were underrepresented in the Midlands region, where their relative share amounted to only 0.4 per cent of its Bantu labour force.

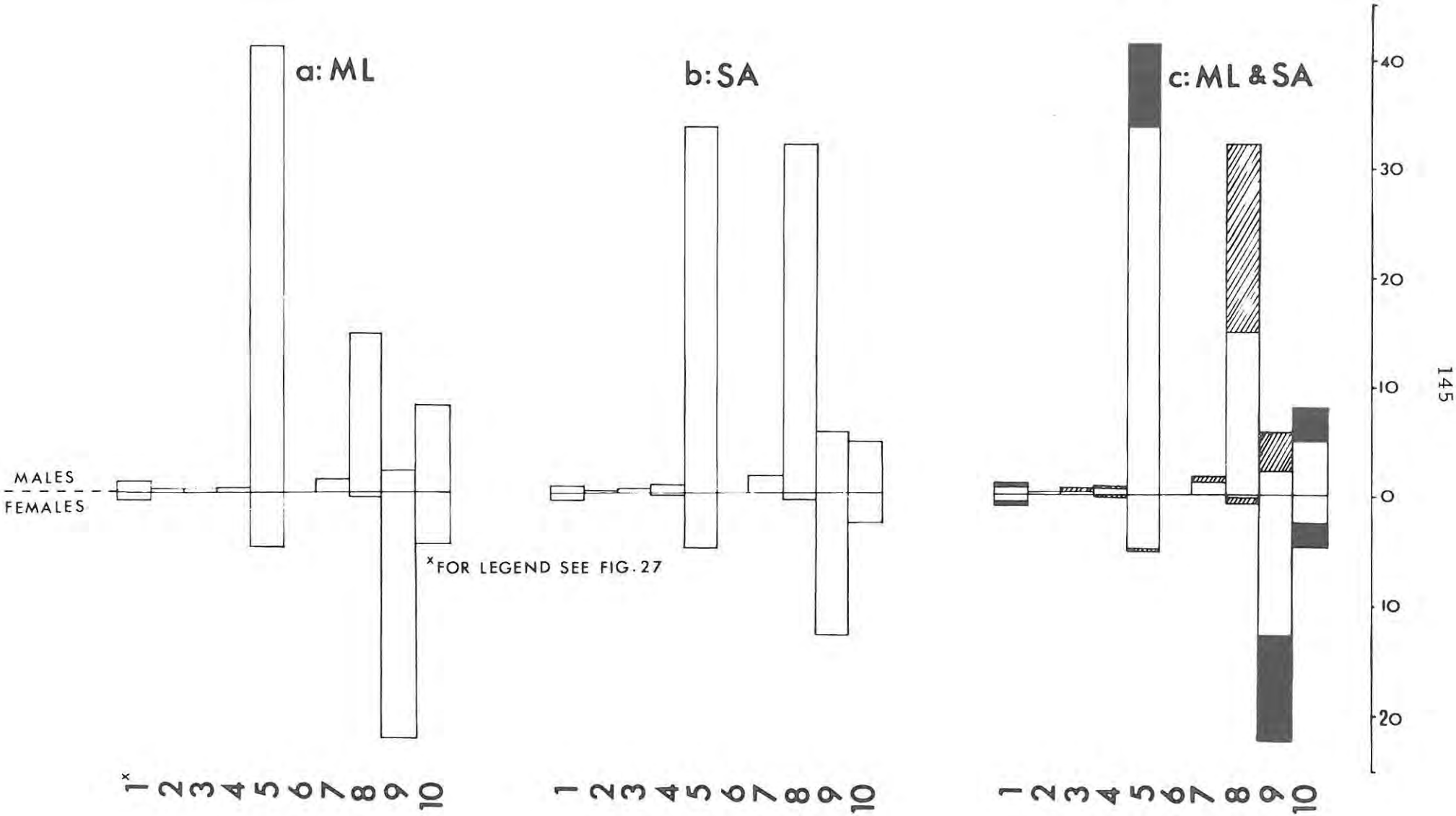
5. Farmer, fisherman, lumberman and related worker:

The regional employment share of 45.2 per cent (males 40.3, females 4.9) exceeded the national average for these occupations, but was rather below that for the "Mix" (56.5 per cent). It appeared from the previous section that the agricultural Bantu are mainly farmworkers rather than independent farmers.

6. Miner, quarryman and related worker:

Bantu participation in this group was not statistically significant. Apart from the regional lack of mining activity, this profession is virtually closed to the Bantu on account of institutional labour arrangements.

FIG.33: MAJOR OCCUPATIONAL GROUPS (per cent)–BANTU 1960



[x] FOR LEGEND SEE FIG. 27

7. Worker in transport and communication:

These professions appeared to show a metropolitan bias, and were somewhat under-represented in the Midlands labour force vis-à-vis, the national one.

8. Craftsman, production worker and labourer:

The relative number of persons in this group constituted one of the major differences between the occupational structure of the regional and national labour force. A major source of Bantu employment, the group employed 32.1 per cent (males 31.5, females 0.6) of the national economically active population, as compared to 14.6 per cent (males 14.2, females 0.2) in the case of the Midlands. Of all the male workers in this group, 94 per cent were classified as "labourer" in both the regional and the national context. The large national surplus was mainly indicative of the underdeveloped state of the Midlands secondary industry and its lack of mining activity. These occupations appeared to be largely metropolitan-oriented, and lagged behind in the Midlands vis-à-vis the "Mix".

9. Service, sports and recreation worker:

More Bantu females were employed in this occupational group than in all the others together. For South Africa as a whole, 96 per cent of the Bantu female workers in this category were returned as "housekeeper, domestic servant,etc.", the corresponding figure for Bantu male service workers being 63 per cent. While showing a clear female surplus in comparison with the other working populations in Table 65 the Midlands region had a proportionately small number of male workers in this group, which may suggest a ready male/female substitutability in these occupations.

10. Unemployed and unspecified:

As with White and Coloured statistics, the number of Bantu in this category was somewhat smaller on the present occupational than the previous industrial classification. The regional figure of 12.6 per cent (males 7.9, females 4.7) was clearly above the national one of 7.3 per cent (males 4.8, females 2.5), thus sustaining the previously gained impression of relatively serious regional Bantu unemployment.

The lack of variety in Bantu employment outlets is further stressed by the above analysis of their occupational distribution. Again excepting the workers who were classified as "unemployed and unspecified", 95.9 per cent of the Midlands Bantu labour force fell into the three occupational groups "farmer, farmworker, etc."; "craftsman, production worker and labourer"; and "service worker". Effectively seen, this means that the overwhelming majority of economically active Bantu were employed in relatively unskilled jobs as farmworkers, labourers and domestic servants. Occupational diversity was not significantly greater in the national context, which differed mainly from the regional pattern in respect of the distribution of workers between these three major occupational groups.

Although information about Bantu personal incomes is not available from the Census, some general inferences concerning its probable level may be drawn indirectly from the data pertaining to occupational distribution. If the remuneration of Coloured workers in different occupations is to serve as a guide, the Bantu median income level in the Midlands should have been lower than in South Africa as a whole, simply because of the regional over-representation of farmworkers and service workers at the expense of the surmisedly better-paid craftsmen, production workers and labourers. For the same reason, and also

because of somewhat greater occupational dispersion, the overall Coloured personal income level should generally exceed that for the Bantu.

Independent data concerning regional disposable incomes appear to point in the same direction. According to statistics collected by the Bureau of Market Research at the University of South Africa, 1.43 per cent of the total disposable income of the South African Bantu was earned in the Midlands region in the year 1959/60. In the Census of 1960, 2.23 per cent of the Republic's Bantu population were enumerated in the Midlands, which thus gives the region a per capita disposable income index of 0.64, compared to the national index of 1.00. The corresponding index values for subregions I, II and III were 0.73, 0.67 and 0.62, respectively. The same source also suggests that the combined Coloured population of the three magisterial districts of Graaff-Reinet, Cradock and Albany experienced a per capita disposable income of 1.35 times that of the corresponding Bantu level, the national Coloured/Bantu differential being 1.79/1.00.[102]

IV General Observations

Effective participation in economic activities:

Because of the difference in unemployment rates found among the White, Coloured and Bantu working populations, the economic activity rates in Tables 48, 49 (Whites); 55, 56 (Coloureds); and 62, 63 (Bantu) would need to be adjusted to reflect their respective effective participation in economic activities. Such an adjustment has been made to the statistics in Table 66, which gives the regional and national crude and general activity rates, net of "unemployed and unspecified" persons, for the three race groups by sex in 1960.

TABLE 66: ADJUSTED (OR EFFECTIVE) CRUDE AND GENERAL ACTIVITY RATES (PER CENT) 1960

Race Group		Midlands		South Africa	
		Males	Females	Males	Females
Whites:	crude rate	48.6	14.2	54.7	18.5
	general rate	83.1	24.1	89.6	30.4
Coloureds:	crude rate	41.0	16.6	45.3	20.3
	general rate	87.9	35.0	87.9	39.3
Bantu:	crude rate	38.4	16.4	52.1	13.7
	general rate	86.2	33.3	92.4	25.1

With regard to general activity rates, the overall effect of the adjustment was to bring the effective economic participation by the three race groups into somewhat greater conformity, the exception being the relationship between the national rates for economically active Coloured and Bantu males. For South Africa as a whole, Bantu males thus showed the highest effective general activity rate (92.4 per cent), followed by White (89.6 per cent) and Coloured (87.9 per cent) males. For female workers, Coloureds ranked first (39.3 per cent), followed by Bantu (25.1) and Whites (18.5 per cent). The adjustment left the regional/national participation differentials substantially unaltered in the case of White and Coloured workers. Effective Bantu participation was, however, significantly raised on the national relative to the regional level, on account of the higher regional unemployment rates for both sexes, the effects of which were to widen the male and to narrow the female participation gaps. For the Midlands region as such, the Coloured population had the highest general activity rates for both sexes, followed by the Bantu and the Whites.

Female share in the total labour force:

The female share in the total labour force tended to vary generally from one geographical unit to another. On the whole, female workers were more prominent in the urban than the rural areas. The 1960 percentage, shares of White, Coloured and Bantu females in their respective labour force aggregates are given in Table 67 for South Africa, the metropolitan areas, the Midlands and the "Mix".

TABLE 67: FEMALE SHARE IN LABOUR FORCE (PER CENT) 1960

Geographical Unit	White	Coloured	Bantu
South Africa	25.6	32.0	21.6
Metropolitan	29.4	37.4	22.8
Midlands	23.7	30.2	32.7
Mix	18.7	27.7	21.3

In all three cases, the metropolitan figures exceeded their respective national averages, with the female shares in the Midlands exceeding those in the "Mix". But while the White and Coloured regional figures were below their corresponding metropolitan and national values, the figure for Bantu females in the Midlands was by far the highest for all four geographical units tabulated. Although this may suggest that female labour was not utilised as fully as possible in all cases, the relative prominence of the Midlands Bantu females may also, at least partly, be ascribed to special circumstances, such as the substitution of female for male workers who had left the region, especially in domestic service.

Combined labour force:

Tables 68 and 69 give the 1960 percentage distribution of the combined White, Coloured and Bantu labour force in the Midlands and South Africa, according to industry divisions and major occupational groups, respectively. The corresponding information is reproduced graphically in Figures 34 and 35. (See pages 150 and 151)

TABLE 68 : WHITES, COLOUREDS AND BANTU - INDUSTRY DIVISIONS (PER CENT) 1960

Industry Divisions	Midlands		South Africa	
	Males	Females	Males	Females
1. Agriculture	35.5	3.3	26.4	3.6
2. Mining	0.3	-	10.9	0.1
3. Manufacturing	0.9	0.1	9.3	1.7
4. Construction	7.5	-	4.9	-
5. Electricity	0.6	-	0.7	-
6. Commerce	5.4	1.5	6.6	2.1
7. Transport	3.3	0.2	3.3	0.3
8. Services	7.4	20.7	9.0	12.9
9. Unemployed and unspecified	8.4	4.9	5.5	2.7
Persons (both sexes)	120,278		5,595,019	

TABLE 69: WHITES, COLOUREDS AND BANTU - MAJOR OCCUPATIONAL GROUPS (PER CENT) 1960

Major Occupational Groups	Midlands		South Africa	
	Males	Females	Males	Females
1. Professional,technical and related worker	2.1	1.8	2.1	1.5
2. Administrative, executive and managerial worker	0.7	0.1	1.1	0.1
3. Clerical worker	1.3	1.2	2.8	2.6
4. Service worker	1.2	0.6	1.7	0.7
5. Farmer, fisherman, lumberman and related worker	36.7	3.3	27.1	3.6
6. Miner, quarryman and related worker	-	-	0.6	-
7. Worker in transport and communication	2.4	0.2	2.7	0.2
8. Craftsman, production worker and labourer	15.8	0.3	29.3	1.4
9. Service worker	2.2	19.1	4.9	10.9
10. Unemployed and unspecified	6.8	4.2	4.3	2.4
Persons (both sexes)	120,275		5,594,711	

FIG.34: INDUSTRY DIVISIONS, per cent, WHITES, COLOUREDS & BANTU 1960

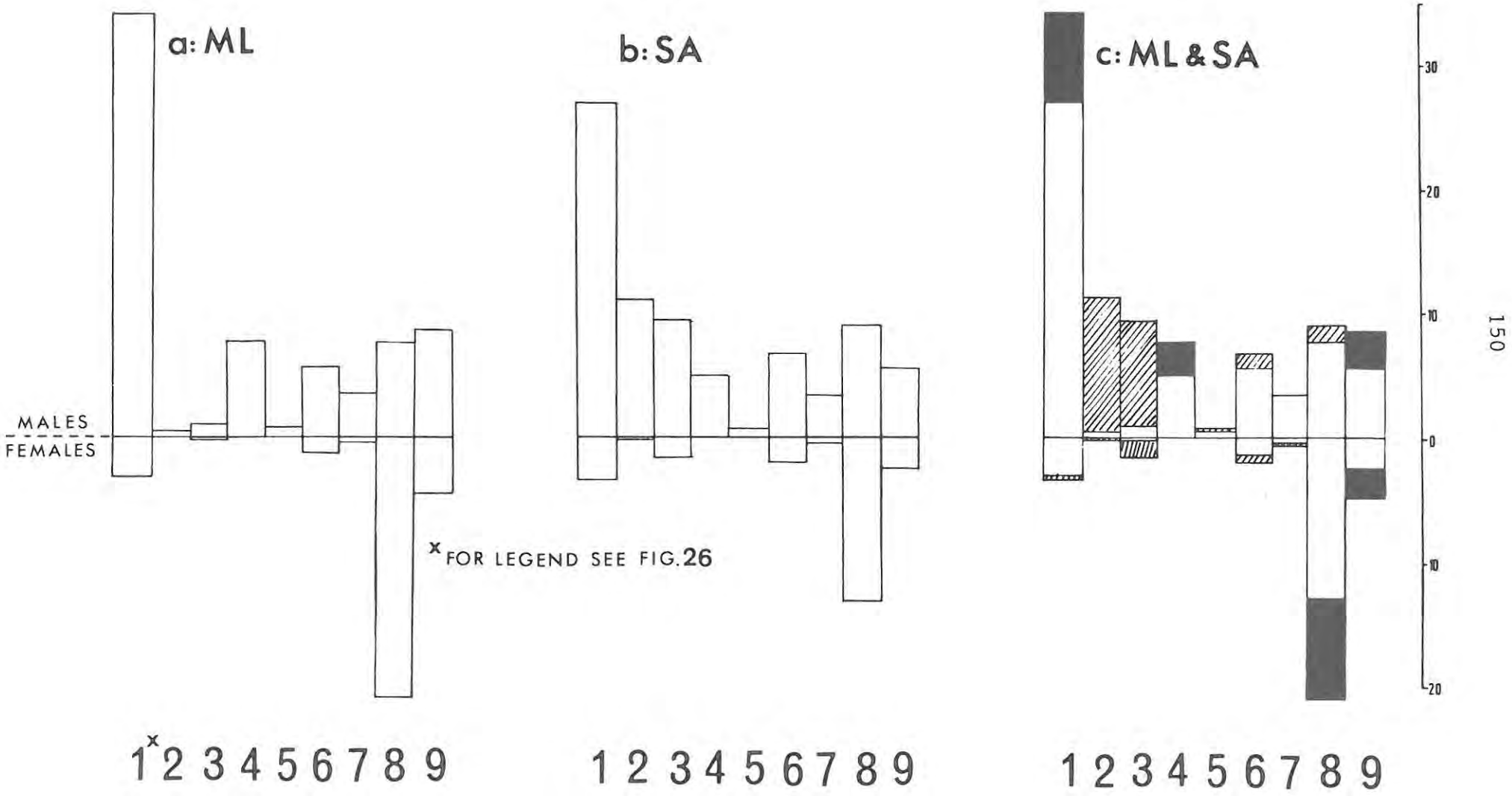
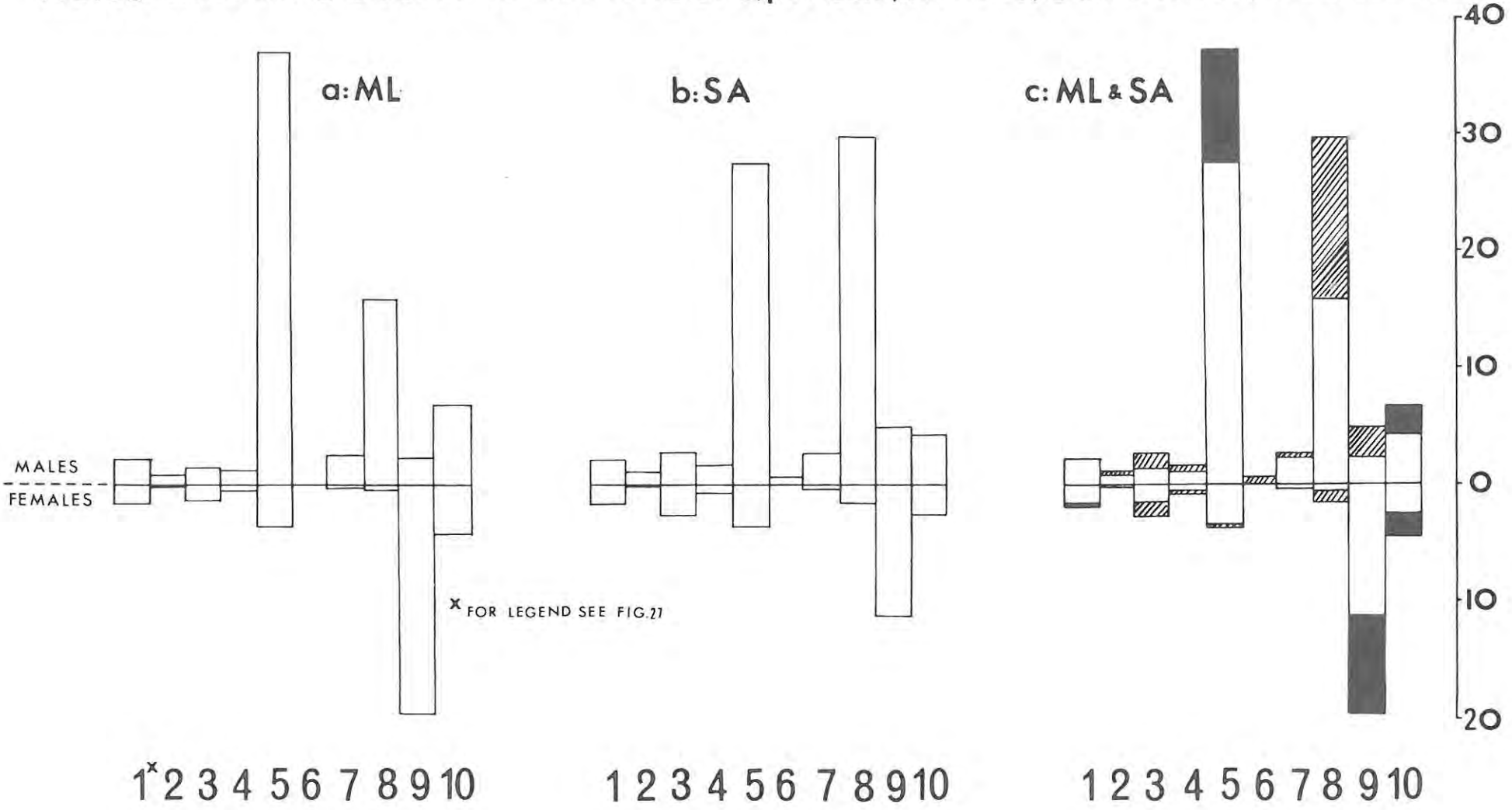


FIG.35 : MAJOR OCCUPATIONAL GROUPS, per cent, WHITES, COLOUREDS & BANTU 1960



x FOR LEGEND SEE FIG.27

According to both classifications, the combined national labour force showed greater structural diversity than the regional one. The Midlands scene was characterised by the prominence of agriculture and services as the main sources of male and female employment, respectively, with mining and manufacturing - and hence the occupational group craftsman (etc.) - severely under-represented. Construction emerged as the most significant form of regional secondary employment, this sector also being more prominent on the regional than the national level. Unemployed and unspecified persons, of both sexes, were relatively more numerous in the Midlands than the Republic, mainly on account of higher regional Bantu unemployment.

Percentage comparisons of the racial composition of the combined labour force on the basis of the industrial and occupational classifications appear in Tables 70 and 71, respectively.

The respective percentage shares of the three race groups in the combined labour force were as follows: Midlands: Whites 16.2, Coloureds 21.5, and Bantu 62.3; South Africa: Whites 20.6, Coloureds 9.9, and Bantu 69.5. Most of the industry divisions in Table 70 were dominated by Bantu workers, while White workers formed the majority in most of the major occupational groups in Table 71. Ignoring those who were classified as "unemployed and unspecified", national White workers formed the majority in the industry divisions commerce and transport, while in the Midlands they were also the majority in manufacturing. In all other industry divisions the majority consisted of Bantu workers. While being in a minority in all cases, Coloured workers featured most prominently in manufacturing and construction. Again ignoring unemployed and unspecified persons, White workers were in the majority in all occupational groups other than farmer (etc), and craftsman (etc.), which were dominated by the Bantu, in the Midlands as well as in the Republic. The Coloureds were thus in a minority in all occupational groups too, but featured most prominently as craftsmen (etc.) and service workers in the regional, and as workers in transport (etc.), service workers and craftsmen (etc.) in the national context.

In general, it therefore emerged that the Bantu seemed to perform much the same type of work, on a comparatively unskilled level, irrespective of the industry division in which they were employed. White workers, on the other hand, showed by far the greatest occupational diversity. The Coloureds were in an intermediate position, rather closer to the Bantu than the White occupational structure. It did therefore appear that in South Africa generally, as well as in the Midlands region, White and non-White labour were mainly complementary in nature, whereas Coloured and Bantu workers often featured as competitors in the (relatively unskilled) labour market.

The structural differences between the combined regional and national working populations were thus the outcome partly of the lesser degree of regional diversification for all three race groups, and partly of the smaller regional share of White workers in the combined labour force.

Approximate per capita output:

Seeing that the Gross Regional Product is not known for the Midlands, as constituted in the present study, it is not possible to make any strict comparisons of regional and national output levels. Some information may, however, be gleaned "by proxy". In a previous study, Banach calculated the Gross Regional Product for a "Cape Midlands" region, consisting of economic regions 06, 08, 09, 10 and 11, as defined in the 1960 Census.[103] The last three of these economic

TABLE 70: INDUSTRY DIVISIONS BY RACE (PER CENT) 1960

Industry Divisions	Midlands			South Africa		
	Whites	Col.	Bantu	Whites	Col.	Bantu
1. Agriculture	11.1	18.8	70.1	7.1	7.2	85.7
2. Mining	8.2	10.0	81.8	10.0	0.7	89.2
3. Manufacturing	47.4	20.4	32.2	34.4	15.2	50.4
4. Construction	15.9	28.0	56.1	26.5	14.6	58.9
5. Electricity	18.0	16.7	65.2	26.7	7.4	65.9
6. Commerce	46.2	19.8	33.9	52.3	9.1	38.6
7. Transport	55.4	14.3	30.3	57.5	8.3	34.2
8. Services	14.9	23.2	61.9	21.2	11.8	67.0
9. Unemployed and unspecified	5.6	25.3	69.1	9.7	18.9	71.4
Total	16.2	21.5	62.3	20.6	9.9	69.5

TABLE 71: MAJOR OCCUPATIONAL GROUPS BY RACE (PER CENT) 1960

Major Occupational Groups	Midlands			South Africa		
	Whites	Col.	Bantu	Whites	Col.	Bantu
1. Professional, technical and related worker	58.6	12.0	29.4	68.8	7.0	24.2
2. Administrative, executive and managerial worker	84.5	8.0	7.6	89.2	2.2	8.6
3. Clerical worker	95.2	1.8	3.0	90.7	2.9	6.3
4. Sales worker	77.1	9.0	13.9	71.3	7.6	21.1
5. Farmer, fisherman, lumberman and related worker	10.7	18.9	70.4	6.8	7.4	85.7
6. Miner, quarryman and related worker	72.7	-	27.3	97.5	1.0	1.5
7. Worker in transport and communication	55.6	17.6	26.8	45.6	13.9	40.5
8. Craftsman, production worker and labourer	14.1	29.4	56.5	15.9	11.2	72.9
9. Service worker	4.1	25.6	70.3	6.6	13.3	80.1
10. Unemployed and unspecified	5.9	23.0	71.2	7.4	16.0	76.6
Total	16.2	21.5	62.3	20.6	9.9	69.5

regions cover 15 of the 21 magisterial districts under the present "Midlands" definition, representing a reasonably well balanced subregional cross-section and including the seven most populous magisterial districts. Using the composition of the combined product of economic regions 09, 10 and 11 as an approximation of that of the present Midlands region, Table 72 compares the regional and national primary, secondary and tertiary output and employment in 1960 on a percentage basis.

TABLE 72: OUTPUT AND EMPLOYMENT BY SECTOR (PER CENT) 1960

Economic Sector	Output		Employment		Output/Employment Ratio	
	Midlands	S. Africa	Midlands	S. Africa	Midlands	S.Africa
Primary	40	26	45	44	0.89	0.59
Secondary	6	24	10	18	0.60	1.33
Tertiary	54	50	45	38	1.20	1.32
Total	100	100	100	100	1.00	1.00

The output/employment ratio in the primary sector was below unity in the Midlands as well as the Republic, the latter figure being the lower of the two. In the secondary sector the Midlands ratio was less than half of that for South Africa, while both ratios were well above unity in the tertiary sector. From these statistics it may be inferred, albeit in rather general terms, that primary output tended to lag behind primary employment, the roles being reversed in the tertiary sector. For the Republic as a whole, the secondary sector showed the highest output/employment ratio; in the Midlands, however, the secondary ratio was the lowest.

An uncritical look at the figures in Table 72 may suggest that for the country as a whole productivity would be improved by a reallocation of labour resources from primary activities, on the one hand, to secondary and tertiary activities on the other; while in the Midlands region labour would have to be moved out of both the primary and especially the secondary into the tertiary sector. While such a broad macroeconomic conclusion could be valid in the national context, it tends to obscure certain regional realities.

Intraregional reallocation of labour between rural and urban employment may be expected to raise the incomes of persons presently classified as farm workers, but hardly those of independent farmers. That is, while non-Whites would probably benefit from such a shift, this would not apply to the largest section of the White agricultural labour force. But even the gains from a redistribution of non-White labour from the primary to the tertiary sector would presumably not be spectacular, if the process involved little more than an intraregional transformation of farmworkers into domestic servants. This is suggested by the low regional secondary output/employment ratio, secondary activity in the Midlands being dominated by relatively unskilled non-White labourers in the construction industry. If an intraregional redistribution of labour is to raise per capita output effectively, it would therefore have to involve higher levels of working skills, rather than a mere interindustry transfer of unskilled labourers.

Regional economic performance:

Although strictly comparable regional income data are lacking, some insight itno the region's economic performance may be obtained from the "General Market Potential Index", compiled by the Bureau of Market Research at the University of South Africa. This is a weighted index number, composed of the following three elements: number of consumer units, ability to spend, and willingness to spend. In general, it may be taken to indicate the level of purchasing power within a given region. The relevant 1960 index values for the Midlands and its constituent parts appear in Table 73, compared to the overall national index number of 100.0000.[104]

TABLE 73 : GENERAL MARKET POTENTIAL INDEX, 1960

Geographical Unit	Index
Aberdeen	.0508
Graaff-Reinet	.1735
Jansenville	.0655
Murraysburg	.0273
Steytlerville	.0389
Subregion I	.3560
Cradock	.2015
Maraisburg	.0240
Middelburg	.0948
Noupoort*	.0825
Pearston	.0256
Somerset East	.1293
Steynsburg	.0321
Tarka	.0427
Subregion II	.6325
Adelaide	.0496
Albany	.3280
Alexandria	.0870
Bathurst	.0733
Bedford	.0517
Fort Beaufort	.0839
Stockenström	.0284
Victoria East	.0599
Subregion III	.7618
Midlands	1.7503
South Africa	100.0000

* Index value for Hanover used as an approximation

In terms of purchasing power, the entire Midlands region represented 1.7503 per cent of the national market potential in 1960, the respective shares of Subregions I, II and III being 0.3560, 0.6325 and 0.7618 per cent. In the same year, 2.40 per cent of the total South African population were resident in the

Midlands, while the regional labour force amounted to 2.11 per cent of the national total. Thus the region's market potential tended to lag behind its relative share in the national population and labour force. From the point of view of economic performance, the Midlands region was therefore well below the national level.

Development potential:

This chapter has attempted to set out the economic properties of the Midlands population, rather than those of the region itself. While the observed structure of the region's labour force has been shaped by the forces operating within its economy, the nature of the labour force is in turn one of the factors which influence the development potential of the region's economy. Available evidence shows that the Midlands region is rather unfavourably placed in the national context, in terms of personal income, per capita output and market potential. The economic properties of the local population do not inspire confidence in this respect. Following Hirschman's analysis, a sustained process of endogenous economic development requires an industrial structure capable of generating high backward (input-providing) and forward (output-providing) "linkage effects".[105] Manufacturing, especially of intermediate products, is deemed to have a high combination of both linkage effects, while these are considered to be comparatively low in service industries. The potential forward linkage effects of agriculture are weakened when production takes place for export. The industrial structure of the Midlands labour force, characterised by a high concentration of workers in (export-oriented) agriculture and services coupled with very modest participation in manufacturing, does therefore not appear to contain within itself a positive stimulus to the economic development of the region.

The continued divergence of the regional and national economic performance levels would, ceteris paribus, therefore appear to be a distinctly realistic prospect. This process has in the past been associated with a continuous regional population loss through net out-migration. Migration tends to be selective, at least by age, and one of its concomitant effects in the Midlands has apparently been a large concentration of the remaining workers in comparatively unskilled occupations. In view of a relatively large supply of unskilled labour, regional unemployment has come to exceed the national level. Population loss, by its impact on the structure of the labour force, has therefore come to be associated with an uncertain economic performance - both as cause and effect. The Midlands region appears to have been caught in a vicious circle, which does not appear to be capable of being broken without outside intervention.

V Summary

Whites:

The crude and general rates of economic activity were lower for the regional than the national White population. The relatively lower male participation in the labour force may be ascribed to a comparatively large group of persons of potential working ages at various educational and training institutions within the region. Female participation may have been inhibited because of the more rural character of the Midlands population and a lack of employment opportunity in smaller communities. The industrial structure of the regional labour force, vis-à-vis the national one, was mainly characterised by the preponderance of agriculture and the under-representation of manufacturing. (As regional mining activity was negligible,

this sector did not represent a significant source of unemployment for any of the race groups in the Midlands.) The region thus showed a relative surplus of workers in the farming occupation, and a deficiency of clerical workers, craftsmen (etc.). The median personal incomes of both male and female workers were lower in the Midlands than in South Africa as a whole. This appeared to be primarily the result of lower regional remuneration within certain urban-oriented occupational groups, rather than the region's occupational structure as such. Independent Midlands farmers earned comparatively high incomes. The regional pattern of income distribution was generally less uneven than the national one. In terms of income differentials, there appeared to exist a definite economic foundation for workers of both sexes to migrate away from the Midlands, especially to the main metropolitan areas of South Africa.

Coloureds:

Coloured crude male and female activity rates were both lower in the Midlands than in South Africa generally. The male difference appeared almost entirely due to the greater youthfulness of the regional population, but even after allowing for the difference in age structure, female labour potential still appeared to be more effectively utilised in the national than the regional context. The industrial structure of the Midlands labour force was somewhat lopsided, with the agricultural and service industries as the main sources of male and female employment, respectively. The manufacturing industry was clearly under-represented in the region. Occupational distribution was consequently dominated by farmworkers and domestic servants. Other labourers were also prominent, but less so than in the national context. An inordinately large section of the labour force found itself out of regular employment, both regionally and nationally. Median personal incomes were lower in the Midlands than in South Africa as a whole, with the regional distribution pattern being more uneven than the national one. This state of affairs appeared as the joint outcome of the regional under-representation of the more well-paid occupational groups and the lower regional remuneration within given occupational groups. According to the income criterion, Coloured workers had an even greater relative incentive than White workers to leave the region for the metropolitan areas of South Africa. The comparatively lower Coloured rates of net out-migration therefore suggest some structural inertia within this population group.

Bantu:

Crude participation in economic activities by the regional Bantu was lower for male and higher for female persons than on the national level. There was no great difference between the regional and national male performances when participation was related to the population of working ages, but the regional female general activity rate remained considerably higher than the corresponding national figure. This may be indicative of the substitution of female for male workers who have left the Midlands, especially in domestic service. There was a regional over-representation of male workers in the agricultural and of female workers in the service industries, with regional males being under-represented in manufacturing and services, as against the national labour force. On the basis of the occupational classification, there was a large relative shortfall of craftsmen, production workers and labourers, coupled with surpluses of (male) farmworkers and (female) domestic servants in the Midlands region. There was a general lack of variety in Bantu employment outlets, this being somewhat more accentuated in the regional context. Both male and female unemployment was greater in the Midlands than in South Africa as a whole. Available information indicated that the average regional Bantu income level was lower than the national one, and also generally lower than the average income of Coloured persons.

General:

Effective participation by the three race groups in economic activities showed greater conformity when "enemployed and unspecified" persons were left out of calculation. The female share in the aggregate labour force was generally higher in urban than rural areas, but the relative figure for Bantu female workers in the Midlands region was even higher than in the metropolitan areas. In general, White workers showed a high rate of participation in the more specialised occupations, while Bantu workers were largely concentrated in unskilled jobs, irrespective of the industry division in which they were employed. Coloured workers were in an intermediate position, rather closer to the structure of the Bantu than the White labour force. The combined Midlands labour force showed less industrial and occupational diversity than its national counterpart. This was due partly to the lesser degree of diversity for all three race groups in the regional than national context, and partly to the relatively smaller share of White workers in the combined Midlands labour force. On the whole, the work performed by Wgitę and non-White persons appeared to be largely complementary, whereas Coloureds and Bantu often performed work of a competitive nature. With the exception of independent White farmers, regional per capital output may seemingly be increased by a general reallocation of labour from the agricultural to the non-agricultural sector, provided that this process also entails the acquisition of higher working skills. In terms of market potential relative to population distribution, the economic performance of the Midlands region was well below the national level. The Midlands appeared to be caught in a vicious circle, where population loss through migration tended to distort the structure of the labour force, which in turn inhibited economic growth, thus again prompting workers to migrate from the region.

CHAPTER V

IMPLICATIONS OF THE FIRST RESULTS OF THE POPULATION CENSUS OF 6 MAY, 1970.

The first results of the 1970 Census, available at the time of writing, were limited to the number of male and female persons, belonging to the different race groups, according to urban and rural areas within the Republic. Persons could therefore not be (regionally) classified by age, industry divisions, major occupational groups, etc. The Department of Statistics also pointed out that the published statistics "must be considered as revised provisional data ... subject to minor adjustments". (Such adjustments may, of course, assume significant proportions on the regional level.)

In the present tabulations, the following alterations were made to the numbers returned for the Midlands region: (i) In the magisterial district of Steynsburg 468 White, 343 Coloured and 1,515 Bantu persons were excluded from their respective population totals, as they were seemingly temporary residents employed in connection with the Orange River Project. (ii) For the sake of comparability with previous census figures, 54 Whites, 33 Coloureds and 26,476 Bantu, who were classified under the Ciskei Bantu Homeland in 1970, were reallocated between the three magisterial districts affected by this change of classification, namely, Fort Beaufort, Stockenström and Victoria East.

Table 74 accordingly gives the relevant regional and subregional population totals for the census years 1904, 1946, 1960 and 1970. (Coloured and Bantu population figures were adjusted for probable census underenumeration of the following magnitude: 1904 - Coloureds 5.5 per cent, Bantu 9.2 per cent; 1946 - Coloureds 7.6 per cent, Bantu 7.0 per cent; 1960 - Coloureds 1.2 per cent, Bantu 5.2 per cent).

TABLE 74 : MIDLANDS POPULATION BY RACE AND SUBREGION

	1904	1946	1960	1970
WHITES:				
Midlands	74,280	63,480	60,330	54,430
Subregion I	21,300	15,060	12,870	10,650
Subregion II	28,410	22,470	21,870	19,370
Subregion III	24,570	25,950	25,590	24,410
COLOUREDS:				
Midlands	43,580	63,970	80,430	87,730
Subregion I	15,560	25,170	31,330	35,680
Subregion II	15,690	23,580	30,560	31,640
Subregion III	12,330	15,220	18,540	20,410
BANTU:				
Midlands	129,400	200,630	257,130	278,920
Subregion I	14,930	16,670	17,190	18,860
Subregion II	31,550	54,830	74,970	73,490
Subregion III	82,920	129,130	164,970	186,570
TOTAL:				
Midlands	247,650	328,560	398,390	421,510
Subregion I	51,810	56,920	61,420	65,210
Subregion II	75,860	101,020	127,530	124,570
Subregion III	119,980	170,620	209,440	231,730

During the tabulated period, the total population of the Midlands region and of South Africa as a whole increased at the following geometric rates:

	Midlands	South Africa
1904-70	0.81%	2.17%
1946-70	1.04%	2.66%
1960-70	0.58%	3.07%

Whereas national population growth appeared to have accelerated over time, population growth in the Midlands appeared to have been slower during the comparatively short period 1960-70 than during the long period 1904-70. Seeing that the regional medium term growth rate (during 1946-70) was observed to have been more rapid than the long term rate, a considerable deceleration in population growth appeared to have occurred during 1960-70. As regional population increase was persistently well below the national level, the share of the Midlands in South Africa's total population declined from 4.5 per cent in 1904 to 2.7 per cent in 1946, then to 2.4 per cent in 1960, and finally to 2.0 per cent in 1970. Within the region as a whole, Subregion II approximately maintained its relative population share, while the share of Subregion III rose at the expense of that of Subregion I.

The average annual population growth rates (per cent) for the Whites, Coloureds and Bantu in each of the 21 magisterial districts within the region, as well as the three subregions, the Midlands itself and South Africa as a whole, are given in Table 75 below.

The Midlands White population continued to decline during the short period 1960-70 at an increased annual rate (1.07 per cent), in comparison with the long period 1904-70 (0.47 per cent) and the medium period 1946-70 (0.64 per cent). In contrast, the national White population increase showed a tendency to accelerate somewhat over time, the respective average annual growth rates for 1904-70, 1946-70 and 1960-70 being 1.85, 1.93 and 2.03 per cent. (More than one-quarter of the 1960-70 national population increase appeared to have been due to net immigration). Only three Midlands districts showed positive White population growth during 1960-70, namely, Steynsburg, Bathurst and Victoria East. In the case of Steynsburg, the apparent increase may well have resulted from the inclusion of temporary residents who could not be statistically separated from the 1970 de jure population. The increase for Bathurst represented the continuation of a long term trend, which may be associated with the development of the town of Port Alfred, where increasing numbers of retired persons prefer to settle. (See Chapter I, page 29 and Chapter III, page 87). It was a symptom of the region's accelerated White population decline that the districts of Noupoort and Albany, which had generally shown positive growth in the past, also experienced a fall in population between 1960 and 1970.

The increase in the national Coloured population, which had taken place at the average annual rate of 2.23 per cent during 1904-70 and 2.95 per cent during 1946-70, appeared to have lost some of its momentum during 1960-70, when the corresponding figure was 2.91 per cent. This loss of momentum was relatively greater in the Midlands region, where Coloured numbers increased at the comparatively low average annual rate of 0.90 per cent during 1960-70. Subregional growth was highest in Subregion I (1.35 per cent), mainly because of the relatively rapid population increase in Graaff-Reinet. Negative growth rates were observed in the magisterial districts of Steytlerville, Cradock, Maraisburg, Somerset East, Steynsburg and Bedford. The incongruously high positve growth rate of 4.06 per cent for Victoria East would appear to have resulted from population under-enumeration there in 1960. (See Chapter I, page 30.)

TABLE 75 : MIDLANDS AND SOUTH AFRICA - AVERAGE ANNUAL POPULATION GROWTH (PER CENT) BY RACE

GEOGRAPHICAL UNIT	WHITES			COLOUREDS			BANTU		
	1904-70	1946-70	1960-70	1904-70	1946-70	1960-70	1904-70	1946-70	1960-70
Aberdeen	-1.78	-2.48	-3.51	+1.08	+0.89	+0.15	+0.18	-0.43	-
Graaff-Reinet	-0.45	-0.78	-0.92	+1.39	+1.88	+2.49	+0.72	+0.34	+0.86
Jansenville	-1.41	-1.83	-2.70	+1.11	+1.58	+0.92	+0.36	+1.22	+0.83
Murraysburg	-1.12	-1.31	-2.56	+1.63	+0.99	+0.57	+0.69	+0.52	+1.39
Steytlerville	-1.77	-2.80	-3.66	+0.84	+0.82	-0.66	-0.80	+0.73	+2.79
Subregion I	-1.05	-1.45	-1.97	+1.26	+1.46	+1.35	+0.35	+0.49	+0.96
Cradock	-0.14	-0.63	-2.08	+1.21	+1.14	-0.59	+1.91	+1.45	+0.02
Maraisburg	-1.22	-2.47	-3.39	+0.65	+1.80	-1.25	+1.53	+0.85	-0.89
Middelburg	-0.75	-0.15	-1.48	+0.95	+1.82	+1.94	+1.04	+1.27	-1.96
Noupoort	+2.53	+0.57	-0.40	+3.26	+2.45	+3.93	+4.53	+2.89	+1.42
Pearston	-2.33	-2.83	-3.75	+0.97	+0.73	+0.33	-0.28	-0.12	+0.09
Somerset East	-0.60	-0.78	-0.71	+1.01	+0.90	-0.70	+0.98	+0.99	+0.57
Steynsburg	-0.86	+0.04	+2.64	+0.66	+1.06	-0.72	+1.35	+1.83	+0.23
Tarka	-1.52	-1.26	-1.72	-0.17	+1.01	+1.11	+0.89	+0.70	-0.74
Subregion II	-0.59	-0.64	-1.31	+1.07	+1.24	+0.36	+1.29	+1.23	-0.21
Adelaide	-0.46	-1.00	-1.62	+0.86	+1.34	+1.01	+0.38	+1.51	+0.79
Albany	+0.27	+0.23	-0.40	+0.95	+1.89	+1.01	+1.64	+2.17	+1.80
Alexandria	-0.19	-0.94	-1.54	+0.80	+1.21	+1.19	+2.01	+1.62	+1.25
Bathurst	+0.57	+0.29	+1.34	+1.57	+1.22	+2.80	+1.32	+1.10	+0.12
Bedford	-0.82	-1.98	-3.16	+0.53	+0.62	-0.28	+0.49	+0.98	+0.39
Fort Beaufort	-0.18	-0.23	-0.40	+0.94	+0.58	+0.31	+1.21	+1.20	+1.21
Stockenström	-1.12	-2.32	-1.17	+0.17	+1.23	+1.90	+1.03	+1.34	+2.27
Victoria East	-0.22	+0.07	+1.24	+0.68	+0.23	+4.06	+0.67	+1.48	+1.73
Subregion III	-0.01	-0.26	-0.50	+0.77	+1.23	+1.00	+1.23	+1.55	+1.28
Midlands	-0.47	-0.64	-1.07	+1.06	+1.32	+0.90	+1.17	+1.38	+0.84
South Africa	+1.85	+1.93	+2.03	+2.23	+2.95	+2.91	+2.09	+2.76	+3.36

The growth of the national Bantu population appeared to have accelerated over time; during 1960-70 its average annual growth rate (3.36 per cent) came to exceed that of the national Coloured population (2.91 per cent). In the Midlands region, however, Bantu population growth also appeared to have slowed down during 1960-70,

It would therefore appear that South Africa's Coloured population has passed the peak of the demographic cycle to enter Phase 4, while the Bantu population has advanced further within Phase 2 of the cycle. (See Chapter II, page 43.)

The subregional, regional and national percentage shares of Whites, Coloureds and Bantu in the total population are set out in Table 76 for the years 1960 and 1970.

TABLE 76 : MIDLANDS AND SOUTH AFRICA - RACE COMPOSITION (PER CENT)

Geographical Unit	1960			1970		
	Whites	Coloureds	Bantu	Whites	Coloureds	Bantu
Subregion I	20.9	51.0	28.0	16.3	54.7	28.9
Subregion II	17.1	24.0	58.8	15.6	25.4	59.0
Subregion III	12.2	8.9	78.8	10.5	8.8	80.5
Midlands	15.1	20.2	64.5	12.9	20.8	66.2
South Africa	19.3	9.4	68.3	17.5	9.4	70.2

Both regionally and nationally, the Coloured population approximately maintained its relative numerical position, while the percentage share of the Bantu increased at the expense of that of the White population. On the subregional level, the relative decline of the White population was greatest in Subregion I. The reciprocal limits to Coloured and Bantu population expansion in those areas within the Midlands region where these two population groups have traditionally lived, were broadly maintained during 1960-70. (See Chapter I, pages 30 and 31).

The subregional, regional and national masculinity ratios for the three race groups (of all ages) are given in Table 77 below for the years 1960 and 1970.

In the case of White and Coloured persons, the regional deficiency of males increased both internally and vis-à-vis their respective national counterparts between 1960 and 1970. Although the regional/national Bantu masculinity gap seemingly narrowed during 1960-70, the regional masculinity ratio as such fell from 90.4 males per 100 females in 1960 to 88.7 in 1970. Declining masculinity ratios were a general phenomenon on the subregional level.

Taken together, the above statistics therefore suggest increased rates of net out-migration from the Midlands region for all three race groups during 1960-70, in comparison with previous intercensal periods. The declining masculinity ratios may further reflect a preponderance of males among recent out-migrants.

TABLE 77 : MIDLANDS AND SOUTH AFRICA - MASCULINITY RATIO (MALES PER 100 FEMALES)

Geographical Unit	1960			1970		
	Whites	Coloureds	Bantu	Whites	Coloureds	Bantu
Subregion I	95.4	98.6	97.8	89.4	93.9	95.3
Subregion II	98.7	97.9	93.0	95.3	93.9	92.0
Subregion III	97.9	99.8	88.6	97.4	93.4	86.9
Midlands	97.7	98.6	90.4	95.0	93.8	88.7
South Africa	99.3	99.1	101.7	99.2	97.0	96.4

The approximate numbers of White and Coloured residual migrants from the region between 1960 and 1970 may be calculated by means of the "balancing equation". (See Chapter III, page 73). As with the other demographic measures in this chapter, such estimates are essentially of a provisional nature, seeing that the number of regional births and deaths (by residence) were not available for the entire intercensal period 1960-70. (The missing numbers were estimated by interpolation and extrapolation.) The results of these calculations are given below; Table 78 shows the calculation of the total number of White and Coloured residual migrants during 1960-70, and Table 79 the average annual number of net out-migrants, as well as the percentage rates of net out-migration from the Midlands during the census intervals 1946-51, 1951-60 and 1960-70.

TABLE 78 : CALCULATION OF RESIDUAL MIGRATION BY MEANS OF THE BALANCING EQUATION, 1960-70

Demographic Term	Whites	Coloureds
$P_{t+n} - P_t$	-5,900	7,230
B	10,220	35,070
D	6,900	14,710
I - E (residual migration)	-9,220	-13,130

The average annual estimate of some 950 White net out-migrants during 1960-70 exceeded the corresponding figure for 1951-60 (800 persons), but fell short of the estimate for 1946-51 (1,040 persons). As the absolute size of the Midlands White population had, however, diminished over time, the average annual rate of net out-migration was the same for 1960-70 as for 1946-51, namely, 1.7 per cent, thus exceeding the corresponding rate for 1951-60 (1.3 per cent).

TABLE 79 : AVERAGE ANNUAL NET OUT-MIGRATION

Census Interval	Whites	Coloureds
1946-51 : Number	1,040	860
Rate (%)	1.7	1.3
1951-60 : Number	800	760
Rate (%)	1.3	1.0
1960-70 : Number	950	1,350
Rate (%)	1.7	1.6

The estimated average annual number of Coloured net out-migrants from the Midlands region during 1960-70 amounted to some 1,350 persons and yielded a corresponding annual rate of 1.6 per cent, which was therefore higher than those for 1951-60 (1.0 per cent) and 1946-51 (1.3 per cent). Although still somewhat below the level of the White net out-migration rate, this development does suggest that the structural inertia with regard to economic incentives elsewhere in South Africa, which was previously associated with the Midlands Coloured population of working ages (see Chapter IV, page 136), appears to be diminishing with the passage of time.

As Bantu vital statistics are not available, it is therefore also not possible to calculate the surmised number of Bantu net out-migrants from the Midlands during 1960-70 at the present stage. For 1951-60 the regional rate of Bantu net out-migration was estimated at 0.9 per cent per annum, concurrently with an average annual regional population increase at the rate of 2.1 per cent. (See Chapter III, pages 104-105). The latter rate had declined to the level of 0.84 per cent for 1960-70, while the national Bantu population growth rate appeared to have risen from 2.26 per cent for 1951-60 to 3.36 per cent for 1960-70. It would therefore appear that the regional rate of Bantu net out-migration should have accelerated sufficiently during 1960-70 to overtake the corresponding rates for both regional Whites and Coloureds. If this has indeed been the case, it would then constitute a novel feature in the Midlands context. (See Chapter III, page 104.) The comparatively high regional Bantu unemployment level, observed in 1960, may well have been the main cause of such a development. (See Chapter IV, pages 143 and 146.)

Table 80 gives the average annual rates of population change which occurred within the urban and rural areas of the Midlands during 1960-70. (For past rates, see Chapter I, Table 10. In calculating these rates, no allowance has been made for Coloured and Bantu census underenumeration).

The Midlands White urban population declined at the average annual rate of 0.92 per cent during 1960-70, which represents a departure from the past general trend of slowly rising urban numbers. During the same period, the White population of South Africa's non-metropolitan urban areas increased at an average annual rate of 1.75 per cent, which emphasises the relative disadvantage of the Midlands towns. (White population growth in metropolitan areas was 2.72 per cent per annum during 1960-70.) White rural numbers in the Midlands declined at the average annual rate of 1.77 per cent during 1960-70, which was in broad conformity with the local rural depopulation observed during previous census intervals. The national White rural

population fell at an average annual rate of 0.47 per cent during 1960-70, thus indicating that the Midlands countryside too was at a relative disadvantage within the South African context as a whole.

TABLE 80: AVERAGE ANNUAL POPULATION GROWTH 1960-70 (PER CENT)

Geographical Unit	Whites	Coloureds	Bantu	Total
Urban: Midlands	-0.92	+3.02	+2.83	+2.03
Subregion I	-1.66	+3.61	+3.74	+2.83
Subregion II	-1.26	+2.91	+1.45	+1.19
Subregion III	-0.04	+2.28	+3.51	+2.51
Rural: Midlands	-1.77	-1.36	+0.54	+0.05
Subregion I	-2.93	-0.62	-0.20	-1.44
Subregion II	-1.20	-2.19	-0.55	-1.03
Subregion III	-1.76	-0.61	+1.06	+0.82

Coloured population growth in the Midlands during 1960-70 was limited to the urban areas, their regional rate of urban increase being 3.02 per cent per annum. During the same period the Coloured population of South Africa's (non-metropolitan) urban and metropolitan areas increased at the average annual rates of 3.98 and 3.91 per cent, respectively. Coloured rural numbers in the Midlands fell at the rate of 1.36 per cent per annum during 1960-70, while the corresponding national rate was a positive figure of 0.86 per cent. The apparent acceleration in the rate of Coloured net out-migration from the Midlands region during 1960-70 (see Table 79), therefore coincided with a rapid process of urbanisation within the region itself, which represents a somewhat novel development for this population group.

Urbanisation within the Midlands region was also comparatively rapid for the Bantu in 1960-70, although their average annual rate of urban growth observed during this period (2.83 per cent) did not represent a significant change from past trends. The rural Bantu population of the Midlands grew at the comparatively slow average annual rate of 0.54 per cent, which was entirely due to the population increase in Subregion III, the rural population of the other two subregions having actually declined during 1960-70. The apparent increase in the regional Bantu net out-migration rate for 1960-70 (see page 164), was therefore primarily due to an accelerated rural exodus.

The 1960-70 positive overall urban growth rate of 2.03 per cent per annum was consequently entirely due to a non-White rural-urban population shift within the Midlands region, with the virtually static overall rural numbers being due to a moderate increase in the Bantu population of Subregion III.

The crude vital rates (per thousand) for the White and Coloured populations of the Midlands and South Africa for 1960-70 and some earlier years appear in Table 81 below.

For the Midlands White population group during 1960-70, the crude birth rate continued on a downward trend, which was previously associated with demographic aging furthered by a continued process of regional net out-migration. The national White crude birth rate, however, rose during 1960-70, relative to 1959-61, which supports the inference that the aging of South Africa's White population is as yet "partial" rather than "total". (See Chapter II, page 48.) While the national White crude death rate showed no tendency to change, the corresponding Midlands rate rose from 11.5 for 1959-61 to 12.4 for 1960-70, which would again reflect the older

age composition of the regional population, for which migration has been chiefly responsible. In consequence, the Midlands rate of natural increase reached the low average level of 6.0 per thousand persons during 1960-70, compared to the national rate of 14.7 per thousand.

TABLE 81 : MIDLANDS AND SOUTH AFRICA - CRUDE VITAL RATES (PER THOUSAND

Period		Crude Birth Rate		Crude Death Rate		Natural Increase	
		ML	SA	ML	SA	ML	SA
Whites:	1945-47	23.7	26.7	10.8	8.9	12.9	17.8
	1950-52	22.5	25.0	11.2	8.6	11.3	16.4
	1959-61	20.5	22.0	11.5	8.7	9.0	13.3
	1960-70	18.4	23.4	12.4	8.7	6.0	14.7
Coloureds:	1945-47	40.0	43.8	18.4	19.7	21.6	24.1
	1950-52	44.9	47.7	18.6	18.7	26.3	29.0
	1959-61	47.6	47.3	17.3	15.1	30.3	32.2
	1960-70	43.0	43.2	18.0	14.9	25.0	28.3

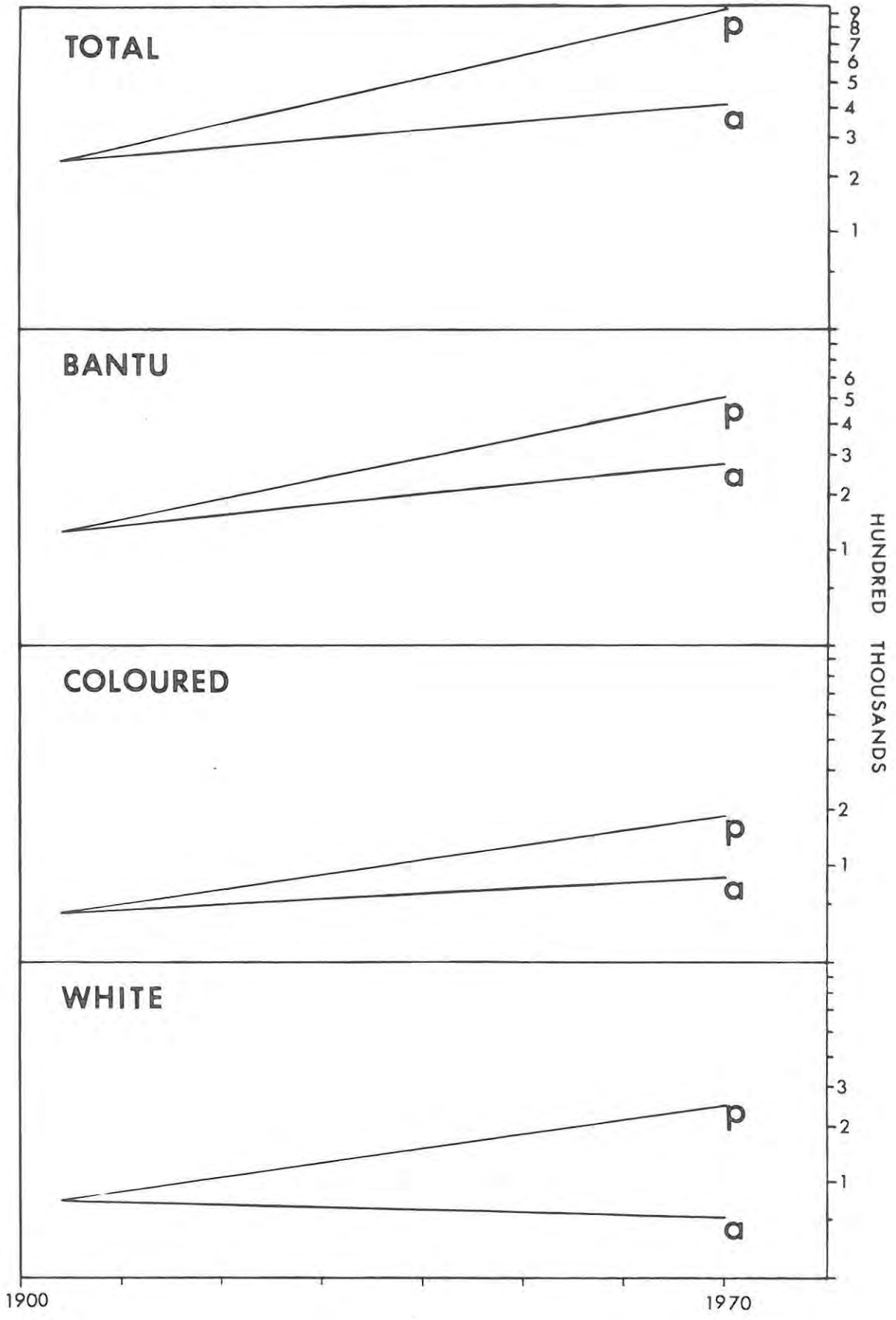
In the case of both regional and national Coloureds, crude fertility appeared to have fallen during 1960-70. In view of the conjectural nature of the basic statistics available at present, it cannot, however, be ruled out that births may have been underregistered during the census interval. Coloured mortality appeared to have risen in the Midlands recently and found itself well above the crude national level during 1960-70. The previously employed standardisation procedure suggested that regional net out-migration also tended to raise the crude mortality level of the Midlands Coloured population (see Chapter III, page 92); the acceleration of this migratory process during 1960-70 may therefore have accounted for the observed increase in regional crude mortality. During the period 1960-70, regional Coloured natural increase was 25.0 per thousand, compared to 28.3 per thousand persons in the case of the national Coloured population. (As the rate of natural increase of South Africa's Coloured population was somewhat below its geometric growth rate during 1960-70, there may well have been some underregistration of births during the census interval, in which case the observed decline in fertility may have been somewhat exaggerated.)

Although no vital statistics are available for the Bantu, the increase in their national geometric growth rate for 1960-70 would appear to be mainly indicative of a decline in mortality during this period. In terms of the "demographic cycle", it is doubtful whether this will be followed by a decline in fertility in the near future. (See Chapter II, page 43.)

In spite of their preliminary, and therefore somewhat conjectural nature, the statistics analysed in this chapter do none the less point to a continuation of the major demographic trends which emerged from the previous four chapters. In particular, the rate of regional population loss through net out-migration appears to have accelerated in recent years. In view of the selectiveness of migration, the vicious circle of population loss and poor economic performance in the Midlands region (see Chapter IV, page 156), therefore seemed to have received an added impetus during 1960-70.

FIG. 36: MIDLANDS – POTENTIAL (p) and ACTUAL (a) POPULATION GROWTH

SEMI-LOGARITHMIC SCALE



In 1904 the population of the Midlands region amounted to some 247,650 persons of all races. If the regional population had grown at national rates during 1904-70, the total Midlands population would have numbered some 946,000 persons in 1970, instead of the actual Census figure of 421,510 persons. The potential (that is, at national rates) and actual population growth in the Midlands during the period 1904-70 is shown graphically in Figure 36, where the initial (1904) and terminal (1970) population numbers have been plotted on semi-logarithmic scale. Mainly on account of the region's comparative lack of economic viability, its actual White, Coloured and Bantu population totals were in 1970 some 22, 47 and 55 per cent of their respective potential levels, that is, of the population totals which their respective 1904-70 national growth rates would have yielded.

CHAPTER VI

THEORIES OF MIGRATION

It is evident from the foregoing chapters that migration has had a dominating influence on patterns of population growth in the Cape Midlands region. In the case of the White population group, persistent net out-migration has been greater than natural increase throughout the twentieth century. The extent of regional net out-migration was estimated by indirect means in Chapter III. In order to gain some information about gross migration into and out of the region, a sample survey of the permanent White population living in private households was held in four Midlands towns in 1969, the findings of which are set out in Chapter VII. The present chapter provides a brief exposition of certain major migration theories, in order to serve as a general background to this sample analysis.

Migration is usually regarded as a specific phenomenon within the general spectrum of population movement or mobility. For present purposes, migration is defined as a form of population mobility between one geographical unit and another, involving an effective change of residence from the place of origin to the place of destination.

This definition therefore excludes a number of forms of spatial mobility, mainly of a temporary nature, which may take place with varying degrees of regularity; for example : travel between the place of work and the place of residence (commuting), the movement of seasonal and casual labourers, regular or random holiday and business trips, visits, excursions, etc. None of these forms of mobility involve an effective change in the normal place of residence of the persons concerned. Although the present definition refers to an "effective" rather than a "permanent" change of residence, the latter term is avoided merely because it may be interpreted in an unintentionally restrictive sense, such as implicitly excluding from a defined body of migrants persons who may change their residence more than once, including those who eventually return to their place of origin. An effective change of residence should be regarded as an event of some fundamental significance; "it implies an element of disassociation from the usual and familiar world, a transition and an involvement with a new environment, a new context of physical space and - most significantly - social relationships. This new environment may be already known and prepared for or it may be totally unfamiliar and distinct".[106] The term migration is associated with spatially established populations only, that is, it would lose its present meaning in relation to a population of nomads.

A number of ambiguities which occasionally attend the concept of migration are practically eliminated in the present context on purely empirical grounds. In principle, migration may be voluntary or enforced, or there may exist certain administrative obstacles to migration. The movement of White persons both into and out of the Midlands region will be regarded as voluntary processes, unhindered by official restrictions. It is, however, useful to distinguish between two classes of migrants, namely, those persons who take the decision to move either for themselves alone or for themselves as well as for their families, and those persons who move simply because of the decision taken by the head of the family. These two classes may be called "primary" and "secondary" migrants, respectively.[107]

Seeing that the geographical units concerned are capable of precise delimitation, it is not necessary to stipulate anything like a minimum distance which people should travel in order to qualify as migrants. As migration

always refers to some defined territory, movements within the boundaries of a given geographical unit will be ignored when discussing migration between that and other geographical units. Increased spatial coverage therefore reduced the number of migrants involved.

Although there are no reasons of principle for a separation of internal and international migrants in the present study, it does automatically emerge as a study of internal migration, on account of the exceedingly small numbers of international migrants to and from the Midlands region.

Migration theories may be divided into two broad categories : theories which analyse the forces that determine the nature, scope and direction of migration; and theories which analyse migration as an equilibrating or disequilibrating process in a changing economy. A brief overview of the main features of these two fields of theory is given in sections I and II, respectively.

I Theories which analyse the forces that determine the nature, scope and direction of migration.

Much of the recent discussion concerning the volume and direction of migration has been conducted in terms of various "gravity" models, which tend to stress, with varying degrees of emphasis, the interrelationship of the following three elements : population size, distance, forces of attraction and repulsion. Each region is conceived as a mass and interregional migration as interaction between masses. Developed as an analogy to Newtonian physics of matter, the first application of the gravity concept to social phenomena has been attributed to H. C. Carey, towards the middle of the 19th century.[108]

A rather more comprehensive statement of the determinants and nature of migration is found in E. G. Ravenstein's celebrated "laws of migration", set out in two learned papers in 1885 and 1889.[109] These may be summarised as follows :

1. The number of migrants between a place of origin and a place of destination is inversely proportional to the distance between the two places.

2. Migration is a diffused process which advances in stages from remote rural districts to "the great centres of commerce and industry", until it affects all regions within a country.

3. Each main stream of migration produces a compensating counterstream.

4. The residents of urban areas are less prone to migration than those of rural areas.

5. Females are more migratory than males over short distances.

6. Technological progress serves to increase the volume of migration.

7. Migrants are primarily motivated by economic factors.

Most subsequent migration models tend to be modifications or elaborations of those of Ravenstein's laws which are stated in an aggregated form. As such, they do not allow for the selectiveness of migration, which is (at least) implied in laws 4 and 5. Although Ravenstein did warn that social laws do not display the rigidity of regularity of physical laws, the essence of his macro-laws is usually expressed in the following general form.[110]

$$Mij = \frac{Pj}{dij} \cdot f(Zi)$$

where Mij = volume of migration to destination i from origin j;

f(Zi) = some function of Zi, where Zi measures the attractive force of destination i;

Pj = population at origin j;

dij = distance between origin j and destination i.

Different migration models have placed varied emphasis on the basic elements in the above formulation. Zipf's well-known $P_1 P_2/D$ hypothesis may be regarded as a general statement of the "principle of least effort" in human behaviour.[111] In its application to migration, the hypothesis states the interacting force between two population centres is created by the population masses of the two centres, while a friction against interaction is caused by the distance between the centres. In other words, the volume of migration between two places is directly proportional to the product of the populations of those places, and inversely proportional to the distance between them.

Stouffer proposed that there is no necessary relationship between the volume of migration and distance. Instead, he postulated that "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities".[112] That is, the attraction of a given place of destination to those at a place of origin becomes reduced, as the ratio of opportunities at intervening places to opportunities at the place of destination increases. Stouffer's formulation, therefore, not only concentrates on Ravenstein's second rather than first law, but also suggests that the "mass" of a region should be represented by a variable denoting opportunity rather than the size of its population.

Although gravity models have been subjected to extensive empirical testing, there remain obvious difficulties in the identification, quantification and weighting of the relevant variables, especially with regard to the forces of attraction and repulsion at places of origin and destination, as well as at intervening places. Further complications arise from attempted disaggregations of such macro-models; for example, certain forces may well have different subjective meanings to different individuals. It is moreover not always clear whether population size or some other variable with perhaps more explicit economic connotation, such as regional income or work opportunity, should be regarded as the most appropriate measure of the "mass" of a region, that is, its basic attraction (or otherwise) to migrants. Distance too is not a simple concept, if it is to represent the sum of the effective intervening obstacles to migration between two places, or the "economic and psychic cost of movement".[113] The distance variable should therefore take into account not only the expense and difficulty of the journey involved, but also the wish to maintain personal contact with the place of origin, as well as the availability of information about opportunities at the place of destination.[114] Information is not only the necessary condition for migration to take place at all, but the information problem as such has a number of ramifications with a bearing on the decision to migrate.[115]

Many of the complexities which surround the construction and use of predictive gravity models fall away when the purpose of a model is to facilitate the projection of the population of a given region, rather than to estimate the probable volume of migration between sets of places or regions. Taking population size to represent mass, the population of a given region at

a certain date may, for example, be calculated by the following formula :[116]

$$p3 = p2 + (p2 - p1)\ \frac{P3 - P2}{P2 - P1}$$

where p = regional population;

P = national population;

1 = beginning of base period;

2 = end of base period;

3 = projection date.

This simple formula yields the same spatial distribution of population at the projection date as during the base period, and would therefore not be appropriate to a region whose population does not grow pari passu with the national population, as is indeed the case with the Midlands. In general, Carrothers did also find that gravity models gave somewhat better results when used to forecast total population numbers than to forecast interregional migration streams.[117]

A disadvantage common to any gravity model is that it tends to be descriptive rather than analytical in its content: "A basic obstacle to its use for projection is the lack of any theory to explain values or functions which we assign to weights and exponents."[118] In projecting the population of a region which is open to migration, formal migration models should therefore be used in conjunction with a broader theoretical scheme which is capable of explaining the structure of the models themselves, and also to account for any significant factors which may not be included in the models. Such factors are mainly of a disaggregative nature, that is, 'they usually refer to the selective elements in migration, which are not incorporated in purely macro-migration models.

A conceptual frame of reference designed to explain the forces of interregional attraction and repulsion has been developed by Professor Lee. Seeing that his scheme does inter alia distinguish between categories or types of migrants, it is more in the nature of a restatement of Ravenstein's micro-macro laws, rather than the construction of yet another pure macro-model.[119]

Lee proceeds to divide the theory of migration into the following four related topics : (1) Factors which influence the decision to migrate; (2) Factors which determine the volume of migration; (3) Development of migration streams and counter-streams; and (4) The selective nature of migration. Most of the subject matter of the first three topics is usually encountered in formal migration models under one guise or another, while that of the fourth topic, which pertains to the characteristics of the migrants themselves, falls beyond their scope. A brief summary of these four topics is given below :

(1) Factors which influence the decision to migrate : These are factors which attract and repel migrants, that is, factors which create regional interaction and which cause friction against it. They consist of a mix of positive and negative factors at both the place of origin and the place of destination and include a set of intervening obstacles. In general, a person is motivated into migrating if the balance of positive factors at the place of destination exceeds in his perception the sum of the following : the balance of positive factors at the place of origin, the intervening obstacles and the weight of normal human inertia. However, the act of migration itself can also be launched by certain crucial events in a person's life-cycle, which may be

largely independent of such "pull-push" considerations; for example, reaching the end of one's education or training, attaining adulthood, entry into the labour force, marriage or dissolution of marriage, retirement, etc. Not all decisions to migrate are therefore taken firmly within a clearly outlined attraction - repulsion framework. Nor do all persons who migrate reach the decision to do so by themselves : "Children are carried along by parents, willy-nilly, and wives accompany their husbands though it tears them away from the environment they love."[120]

(2) Factors which determine the volume of migration : The volume of migration will be largely determined by the power of the factors set out under the previous heading. For example, the advance of specialisation and growing economic diversity serve to raise the general propensity to migrate, while a high degree of social and occupational mobility increases the force of attraction of specific regions. Industrialisation and continued economic progress, by creating spatial and occupational diversity, thus also serve to promote migration. Uneven rates of economic progress within a country tend to entrench and magnify the factors of attraction and repulsion in different localities. The passage of time itself, if accompanied by technological improvements and the spread of information, tends to wear down the obstacles which impede interregional movement. Migration tends to become a cumulative process, the volume of further migration being a function of the degree of migration already reached.

(3) Development of migration streams and counterstreams : The establishing of poles or regions where the factors of either attraction or those of repulsion predominate, together with the progressive elimination of intervening obstacles, causes migration to "proceed along well defined routes toward highly specific destinations".[121] The flow of information from the place of destination back to the place of origin induces more migrants to join the stream. A counterstream may come about for various reasons. The positive factors at the place of destination may disappear or lose some of their power of attraction; migrants may become aware of untapped opportunities at their place of origin and return in order to exploit these with their newly acquired skills. Some people will return to their place of origin for the purpose of retirement. Returning migrants are, in many cases, likely to be accompanied by their families, and sometimes also by people indigenous to the area of destination. Lee defines the "efficiency" of a migration stream as the ratio of stream to counterstream, that is, the net redistribution of population effected by the opposite streams. Efficiency tends to be high if negative factors at the place of origin were primarily responsible for the development of the stream, if the intervening obstacles are great, and when economic conditions are prosperous. Efficiency tends to be low if the places or origin and destination are similar and when economic conditions are depressed.

(4) The selective nature of migration : Migrants do not constitute a random sample of the population at their place of origin. Different individuals react differently to positive and negative factors at the places of origin and destination; they also have different abilities in overcoming the intervening obstacles. In consequence, migration is inevitably a selective process. Migrants who respond primarily to the positive factors at the place of destination are said to be positively, and those who respond primarily to the negative factors at the place of origin, negatively selected. Positive selection tends to

increase with the difficulty of the intervening obstacles. The concurrence of certain life-cycle events and the act of migration makes migration an age-selective process. In general, the characteristics of migrants tend to be a blend of those of the populations at the places of origin and destination.

II Theories which analyse migration as an equilibrating or disequilibrating process in a changing economy.

The dichotomy of the Classical and Keynesian viewpoints which pervades in economics generally, is also found in the theory of migration as an inter-regional process.

Broadly speaking the former approach suggests that interregional deviations in real personal income (or wage) levels tend to be self-correcting in consequence of the migration of labour and capital which they engender. The latter approach again suggests that such deviations will be amplified by labour and capital migration. Converging regional income patterns would also tend to bring different regions into greater conformity in terms of general economic performance, while diverging income patterns would act to increase the economic inequality between regions.

A somewhat simplified Classical view would tend to regard both labour and capital within a country as fully homogeneous and mobile resources, the supply of which should always be capable of responding to changes in demand. Assuming that both factors seek to maximise returns and that there are no obstacles to interregional resource movement, there would be a long term tendency towards equalisation of interregional real factor earnings, in consequence of compensating factor movements. A region with comparatively low real incomes (or with more than "frictionally" unemployed labour) would sooner or later start to lose workers, who would migrate to high-income regions (or regions where employment is available). This process would then affect supply conditions in the respective labour markets so as to raise wages in the area of origin and to depress them in the area of destination. At the same time, capital would tend to flow in the opposite direction, away from higher-paid towards lower-paid labour. This process would also tend to bring the interregional wage levels into closer alignment, through its influence on demand conditions in the respective labour markets. Migration would therefore act as an equilibrating mechanism in a changing economy, tending to reduce the inequalities which might develop between regions.

The following statement, by Bertil Ohlin, may be regarded as fairly representative of the Classical viewpoint : "As factors move from regions where their prices are relatively low to regions where they are dear, their scarcity and therefore their rewards in the former are increased, whereas their prices in the latter fall, unless there is at the same time some counteracting tendency. Interregional mobility tends to make prices more uniform in the regions concerned, just as the interregional movements of commodities were found to do."[122]

The persistence of (non-frictional) regional inequalities of real income would then have to be explained in a dynamic setting, in which real incomes change too rapidly for the compensating price adjustments, via supply and demand changes, to become effective in the respective regional labour markets. Yet the belief in ultimate regional convergence, albeit in the "very" long run, would appear to be deeply engrained in the Classical viewpoint : "Differences of the latter sort may last a long time if new economic changes create them as quickly as the labour flow extinguishes them."[123]

To show how the Keynesian viewpoint leads to a theory of regional divergence, rather than convergence, it will again be convenient to assume two regions, one with comparatively low real incomes (or with unemployed labour) and the other with comparatively high real incomes (or with employment opportunity). As labour starts to leave the low-income (or depressed) region to enter into employment in the high-income (or prosperous) region, the first effects of this migratory process will be a reduction in the demand for final output in the region of origin and an increase in such demand in the region of destination. Consequently, a negative employment-output multiplier process is set off in the depressed region, while the opposite occurs in the prosperous region. In Keynesian dynamics, the price (wage) adjustments wrought by the respective labour markets are too slow to compensate for the interregional differences in real income (or employment) which tend to become cumulative with the passage of time. Consequently there is no tendency towards an interregional equalisation of real wage levels, not even in the "very" long run. On the contrary, initial regional imbalances tend to become greater in the course of time.

The fundamental structural difference between the Classical (equilibrium) and Keynesian (disequilibrium) theories is summarised by Axel Leijonhufvud as follows : "In general equilibrium models, prices are the only endogenous variable which enter as arguments into the demand and supply functions of individual households. Tastes and initial resource endowments are parametric. In "Keynesian" flow models the corresponding arguments are real income and the interest rate. Of these, real income is a measure of quantity, not of price. On a highly abstract level, the fundamental distinction between general equilibrium and Keynesian models lies in the appearance of this quantity variable in the excess demand relations of the latter. The difference is due to the assumptions made about the adjustment behaviour of the two systems. In the short run, the "Classical" system adjusts to changes in money expenditures by means of price-level movements; the Keynesian adjusts primarily by way of real income movements."[124]

A recent interpretation of the Keynesian approach is that disequilibrium may fail to eliminate itself because of the deficiency of available information, and the cost and time lag involved in securing better information. Low regional wages (or unemployment) may thus not disappear because the workers concerned do not at any given moment possess perfect and costless information about alternative income and job opportunities elsewhere. Disturbances which are dismissed as "frictional" in the Classical equilibrium approach may thus grow considerable in scope and become enduring in nature.[125]

Not only does the Keynesian system respond to initial disturbances (such as regional real income divergencies) by means of short run quantity rather than price-level adjustments, but it also amplifies and entrenches these disturbances in the long run through the operation of the multiplier process. In brief, "the revolutionary impact of Keynesian Economics on contemporary thought stemmed in the main ... from Keynes' reversal of the conventional (i. e. Classical) ranking in price and quantity velocities".[126]

Furthermore, according to the Keynesian viewpoint there would be no compensating movement of capital in a direction opposite to the interregional labour migration. As capital is not concerned with labour cost alone, but rather more with existing and potential conditions of yield, both resources would tend to flow in the same direction, that is, away from the depressed towards the prosperous region. A lack of capital would generally work against industrial diversification within the depressed region, by preventing the movement of local agricultural labour into local non-agricultural occupations, where it might have been utilised more productively and earned a higher remuneration.

The Keynesian disequilibrium thesis is reinforced by the relaxation of the (Classical) assumption of the homogeneity of labour. Out-migration would then be a positively selective process, in the sense that the first workers to leave the region would be those with the best prospects of obtaining employment (or better-paid employment) elsewhere. That is, workers with skills would leave, while those without skills would remain behind.[127] As there is bound to be some complementarity in the employment of skilled and unskilled workers, regional unemployment of the latter might well develop (or increase). Consequently the occupational structure of the (depressed) place of origin would tend to become lopsided as it continued to lose more and more of its skilled workers. The first impact of a regional economic divergence would therefore be positively selected migration which would in turn tend to create unemployment (or further unemployment) at the place of origin, rather than to absorb the unemployed (or disguised unemployed) at the place of destination.[128] A corollary of these disequilibrium-amplifying properties of selective migration would again be that capital is repelled from the depressed and attracted to the prosperous region.

Certain qualitative changes would presumably also come into operation in the prosperous areas, thus intensifying the development of regional inequality and imbalance. Firms situated in growth regions would benefit from economies of large-scale production, which may induce shifts in their marginal productivity schedules, sufficient to compensate for their downward slope - thus preventing real wages from falling. Moreover, prosperous regions would not only tend to develop a diversified technological, industrial and occupational mix favouring further growth, but also a general social and cultural environment which may well attract further migrants from regions lacking similar facilities.[129]

The postulated tendency towards regional disequilibrium in a changing economy has been raised by Gunnar Myrdal to the status of a general principle of "Circular Causation", with (positive) "spread-effects" and (negative) "backwash-effects" in prosperous and backward regions, respectively, the combined effects of which are to increase regional imbalances and inequalities. Such internal inequalities are also regarded to be of a greater order in the underdeveloped than in the highly developed countries.[130]

A rather different approach to the regionally equilibrating or disequilibrating consequences of migration has been adopted by Sjaastad, whose analysis is cast in the general framework of the Pigovian theory of resource allocation, where the market mechanism creates "external" costs and benefits which prevent the spontaneous attainment of a general equilibrium. That is, migratory flows would be insufficient to correct emerging regional income disparities fully, if the private costs of migration exceeded its social costs and/or if the private returns of migration fell short of its social returns.[131] Such a theory would not lead to the conclusion of cumulatively increasing regional imbalances, but it would explain why the equilibrating effects of migration within a country have been less than complete.

Similarly, it may be argued that the regionally equilibrating effects of migration, as perceived by the Classical viewpoint, are not necessarily invalid but that insufficient attention has been paid to the "frictional" elements present in the process. In other words, intervening obstacles, such as transportation difficulties and lack of adequate information, may render both labour and capital less than fully mobile and thus prevent the (further) narrowing of interregional income differentials.

It would serve little useful purpose to juxtapose the apparent merits and demerits of the two basic types of migration theory, respectively set out in sections I and II above. While both theories have their prognostic properties,

they are not really designed to cover the same field of human activity : gravity models are, in principle, related to society in its entirety, whereas the Classical and Keynesian theories refer more explicitly to the national economy.

Gravity models, as such, have resulted from the application of methods belonging to the field of physical science to that of social phenomena. Any predictions which result from such models therefore tend to presuppose a degree of regularity which is not normally encountered in human affairs. Human processes, such as migration, are processes of historical change. As such they are prompted by many forces and "whatever may be the best way of studying them, it is impossible to reduce the rich variety of forces in operation to a simple analytical model".[132] Attempts to represent migration merely as a response to a finite number of seemingly relevant causes therefore invariably mask the real complexities of genuine human action and social behaviour.

It is mainly for this reason that the Classical and Keynesian theories too are liable to provide an inadequate prognosis of human migration. Although economic factors may often predominate, they do not necessarily represent the only reasons why people migrate.[133] And the economic causes of migration themselves (however defined) are in any case deeply embedded in a more general social environment. "Once it is accepted that the causes of migration patterns are more complex than, and not necessarily related to, employment, it becomes easier to understand why the economic models mentioned above appear to help so little in evaluating questions about either economic causes or effects of migration."[134]

Given their common restrictions, the Classical and Keynesian theories do, of course, yield vastly different predictions with regard to the consequences which follow from the initiation of a given migration stream: while the Classical theory suggests that migration streams eventually come to a spontaneous end, and may even be reversed, the Keynesian theory again suggests that an unchecked stream would tend to grow in scope and intensity, and could be halted only by some kind of outside intervention. These rival conclusions are directly related to the respective hypotheses of regional economic convergence and divergence in general. In the light of the predictive limitations of migration theories, it is hardly surprising that empirical studies have usually failed to provide conclusive support for either hypothesis.[135]

III Summary.

Migration is defined as a form of population mobility between one geographical unit and another, involving an effective change of residence from the place of origin to the place of destination.

Theories which analyse the forces that determine the nature, scope and direction of migration have led to the construction of gravity models of regional interaction. In these models various elements of attraction and repulsion are seen as the causes of interregional migration, while the distance between regions is usually taken to represent the obstacles that create friction against migration, which may be further strengthened by opportunities present at intervening places. Because of their aggregative structure and various other practical difficulties, gravity models have limited analytical usefulness and should therefore be employed in conjunction with some broader and less rigid theoretical frame of reference.

Migration may also be theoretically treated as an equilibrating or disequilibrating process in a changing economy. On the former (Classical) view, migration would tend to reduce regional real income inequalities in

particular and regional economic imbalances in general, while the latter (Keynesian) view leads to opposite conclusions.

The predictive quality of all migration theories is impaired by their inability to account fully for the complex set of forces and circumstances which characterises a social process such as migration.

Empirical studies into the regionally equilibrating or disequilibrating effects of migration have generally failed to provide unequivocal support for any particular theory of migration.

CHAPTER VII

WHITE MIGRATION AND MIDLANDS TOWNS

The data which are set out in this chapter were obtained mainly from a sample survey held in February, 1969 in the following Midlands towns: Aberdeen, Cradock, Graaff-Reinet and Steynsburg. The sampling frame was limited to the private White households in the four towns; residents of various institutions not classified as private homes were therefore excluded. All statistics yielded by the survey are, of course, estimates which are subject to a margin of error and should therefore be treated with some circumspection, especially where numbers are small. (For details of the survey, see the Appendix to this chaper.)

Following the introductory section, Section II sets out certain basic economic and migratory characteristics of the (non-institutional) de jure population of the sample towns. It is believed that the conclusions obtained are broadly valid for the entire White urban population of Subregions I and II, but not to the same extent for that of Subregion III, which was not covered by the survey. There are altogether 35 urban places in the Cape Midlands region, which may be ordered into the following five-tier hierarchy: Major Country Town, Country Town, Minor Country Town, Local Service Centre and Low Order Service Centre. According to this division, Cradock (Subregion II) and Graaff-Reinet (Subregion I) rank as Country Towns; Aberdeen (Subregion I) and Steynsburg (Subregion II) as Local Service Centres. While Subregions I and II tend to be rather similar in their urban structure, Subregion III appears to have a more pronounced urban character, embracing the only Major Country Town in the Midlands region (Grahamstown).[136] Although the urban data presented in this chapter are therefore not fully relevant to conditions in Subregion III, they will nevertheless be described, in places, as "Midlands" data, simply for the sake of brevity.

Part (a) of Section II of this chapter (economic properties) is based on data for the towns' entire (non-institutional) de jure population, estimated at 10,397 persons (males 5,076; females 5,321) or, in most cases, for its adult component (persons aged 18 years and over), estimated at 6,138 persons (males 2,901; females 3,237). Part (b) of Section II is, however, based on data pertaining to individual adults obtained from a cluster sample, selected randomly from 2,936 private households. (The structural discrepancies between the adult part of the entire estimated de jure population in Part (a) and the adult population estimated on the basis of the individuals interviewed in Part (b) are discussed in the Appendix to this chapter.) The average household size in the four sample towns was therefore 3.5 persons.

Section III of this chapter is chiefly concerned with the characteristics of an estimated body of 3,192 adult persons (males 1,661; females 1,531) who had permanently left the parental home, some 2,403 of whom (males 1,253; females 1,150) were also out-migrants from the Midlands region.

Certain minor discrepancies, resulting from the processing of the basic data, sometimes occur in the statistical tables which follow. In no case do these discrepancies assume significant proportions.

I Dynamics of Migration

The statistics in Table 82, reproduced graphically in Figure 37, refer to a "combined" population which consists of the estimated (non-institutional) de jure population of the four sample towns (first generation) and their direct descendants who were residing outside the Midlands region (second, third and fourth generations), all of whom were living at the time of the survey in February, 1969.

TABLE 82 : "COMBINED" POPULATION BY SEX AND AGE (PER CENT) 1969

Age Group	Males				Females			
	1st Gen.	2nd Gen.	3rd Gen.	4th Gen.	1st Gen.	2nd Gen.	3rd Gen.	4th Gen.
0- 4	2.83	-	2.89	1.62	2.21	-	2.81	1.58
5- 9	2.72	-	2.64	1.07	3.36	-	2.54	1.03
10-14	3.55	-	2.41	0.38	3.26	-	2.34	0.37
15-19	3.38	0.35	2.08	0.06	3.12	0.15	2.01	0.05
20-24	1.10	1.41	1.35	-	1.00	0.13	1.33	-
25-29	0.97	1.40	0.73	-	1.32	1.12	0.74	-
30-34	1.32	1.01	0.37	-	1.53	1.02	0.37	-
35-39	1.12	0.92	0.09	-	1.96	0.93	0.09	-
40-44	1.83	0.78	0.01	-	1.55	0.66	0.01	-
45-49	1.57	0.40	-	-	1.83	0.58	-	-
50-54	1.83	0.18	-	-	1.40	0.18	-	-
55-59	1.46	-	-	-	1.63	0.12	-	-
60-64	1.23	-	-	-	1.13	0.03	-	-
65-69	0.80	-	-	-	1.06	-	-	-
70-74	0.67	-	-	-	0.95	-	-	-
75+	0.93	-	-	-	1.33	-	-	-
Unspecified	0.05	0.19	0.11	-	0.05	0.14	0.14	-
Total	27.36	6.76	12.68	3.13	28.69	6.06	12.34	3.03
Persons	5,076	1,253	2,350	581	5,321	1,150	2,286	564

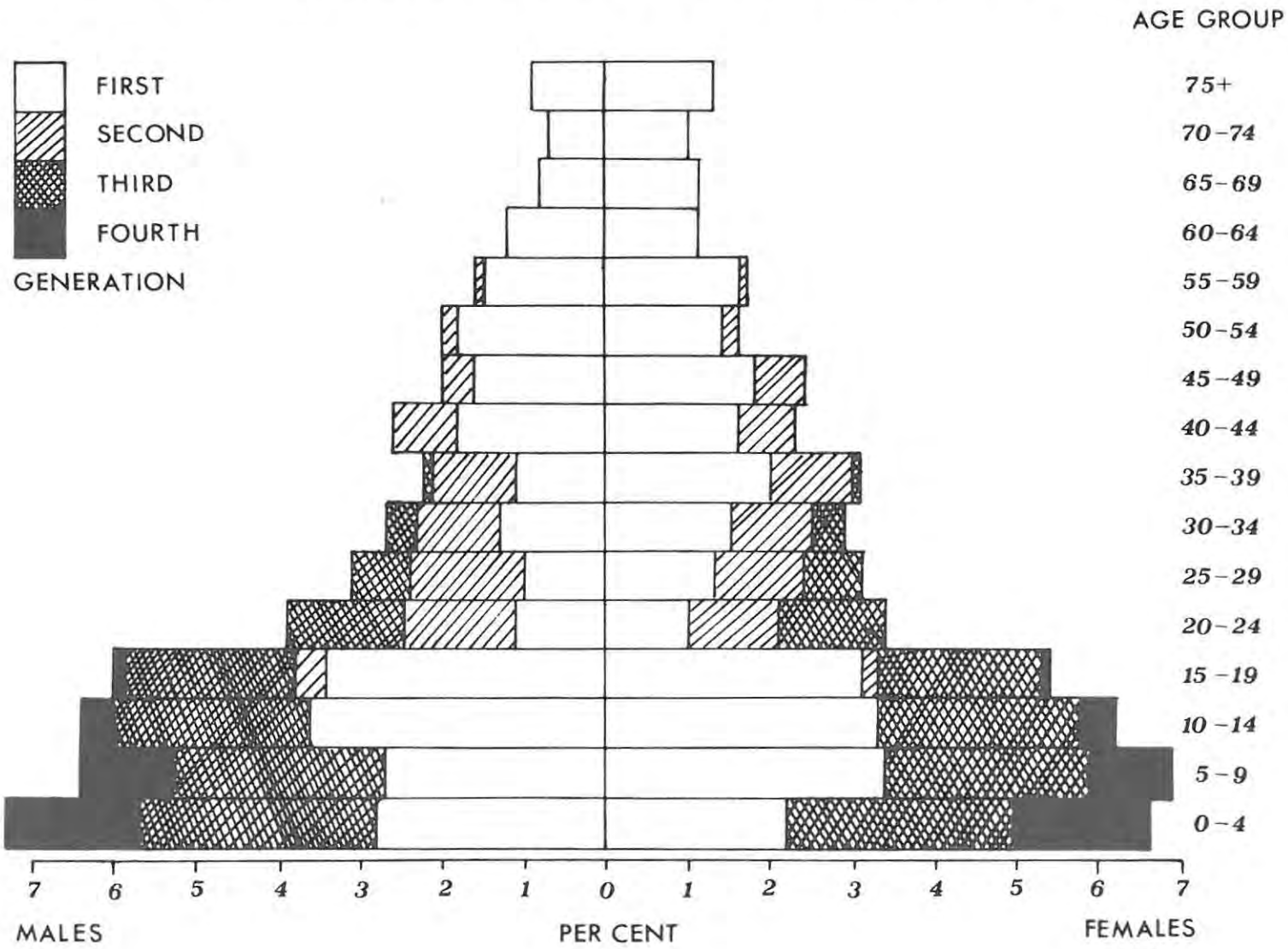
This "combined" population is not designed to contrast the number of local residents with those who have left the region; the actual number of the latter is not known in any case. The purpose is rather to indicate something of the dynamic nature of migration or, more specifically, the "multiplier effect" of a given body of out-migrants from the region. The survey yielded information about an estimated body of 2,403 adult persons (males 52.1; females 47.9 per cent) who were permanently residing outside the Midlands region and whose parents were living in the four sample towns.[137] (The estimated permanent population of the latter is therefore referred to as the "first generation" only in the sense that it includes the parents of the out-migrants, that is, of the "second generation".) These 2,403 persons represent, of course, only a fraction of all the former residents of the sample towns who were permanently living outside the Midlands region at the time of the survey.

On the basis of prevailing national nuptiality, fertility and mortality rates, it was estimated that these persons had a probable number of 4,636 children (males 50.7; females 49.3 per cent), referred to as the "third generation", who in turn had a probable number of 1,145 children (males 50.7; females 49.3 per cent), referred to as the "fourth generation".

While the direct population loss through migration therefore amounted to some 2,403 persons, the indirect loss of their descendants was estimated at some 5,781 persons. That is, the ultimate total population loss to the region (8,158 persons) was about 3.4 times its initial population loss (2,403 persons).

The implications of this dynamic process for the local population structure are evident from Figure 37 below: the second and third generations represent the loss of persons of working ages, while the third and fourth generations represent the loss

FIG. 37: 'COMBINED' POPULATION 1969



in terms of youth and fertility. The outstanding property of the inner core of the permanent population (the first generation) itself is demographic aging. The estimated de jure population of some 10,397 persons consisted of 48.8 per cent males and 51.2 per cent females. This particular sex ratio would also appear to be the outcome of a somewhat male-biassed process of out-migration over a long period of time.

II Permanent (Non-institutional) de jure population. (The first generation).

(a) Economic characteristics

TABLE 83 : CRUDE AND GENERAL RATES OF ECONOMIC ACTIVITY (PER CENT)

Sex	Midlands (U+R) 1960		Midlands (U) 1969		"Other Urban" 1960	
	Crude Rate	General Rate	Crude Rate	General Rate	Crude Rate	General Rate
Male	50.1	85.7	46.9	81.2	48.2	84.2
Female	15.3	25.9	15.3	26.3	15.9	27.5
Total	32.5	55.3	30.6	53.2	31.9	55.4

The above table summarises the crude (economically active persons/total population) and general (economically active persons/population aged 15-64 years) rates of economic activity, on a percentage basis, for the Midlands region as a whole (in 1960), the four Midlands sample towns (in 1969) and "other urban" areas, that is, the non-metropolitan urban areas, of South Africa (in 1960). The male activity rates for the sample towns were somewhat below those for the entire Midlands region and the "other urban" areas too. The former phenomenon is to be expected, in view of the traditionally high male activity rates in agriculture, which occupies a rather marginal position in urban communities. In the latter case, the observed differences may reflect a higher proportion of schoolgoing youths in the sample towns, but in terms of normal interregional distribution patterns of male economic activity, they would hardly seem of any special significance.[138] The observed female activity rates in Table 83 are in remarkably close agreement and do therefore not indicate any significant differences in regional economic activity.

Important regional differences do, however, emerge when the industrial structure of the economically active population of the sample towns (in 1969) is compared to that of the "other urban" areas of South Africa (in 1960). These (percentage) distributions are set out in Table 84 and Figure 38 (a), below.

Excluding unemployed and unspecified persons, the economically active populations of the Midlands sample towns and the "other urban" areas were distributed among primary, secondary and tertiary industries as follows:

	Midlands	"Other urban"
Primary	3.8%	10.3%
Secondary	6.6%	24.2%
Tertiary	89.6%	65.4%

TABLE 84: INDUSTRY DIVISIONS OF ECONOMICALLY ACTIVE POPULATION (PER CENT)

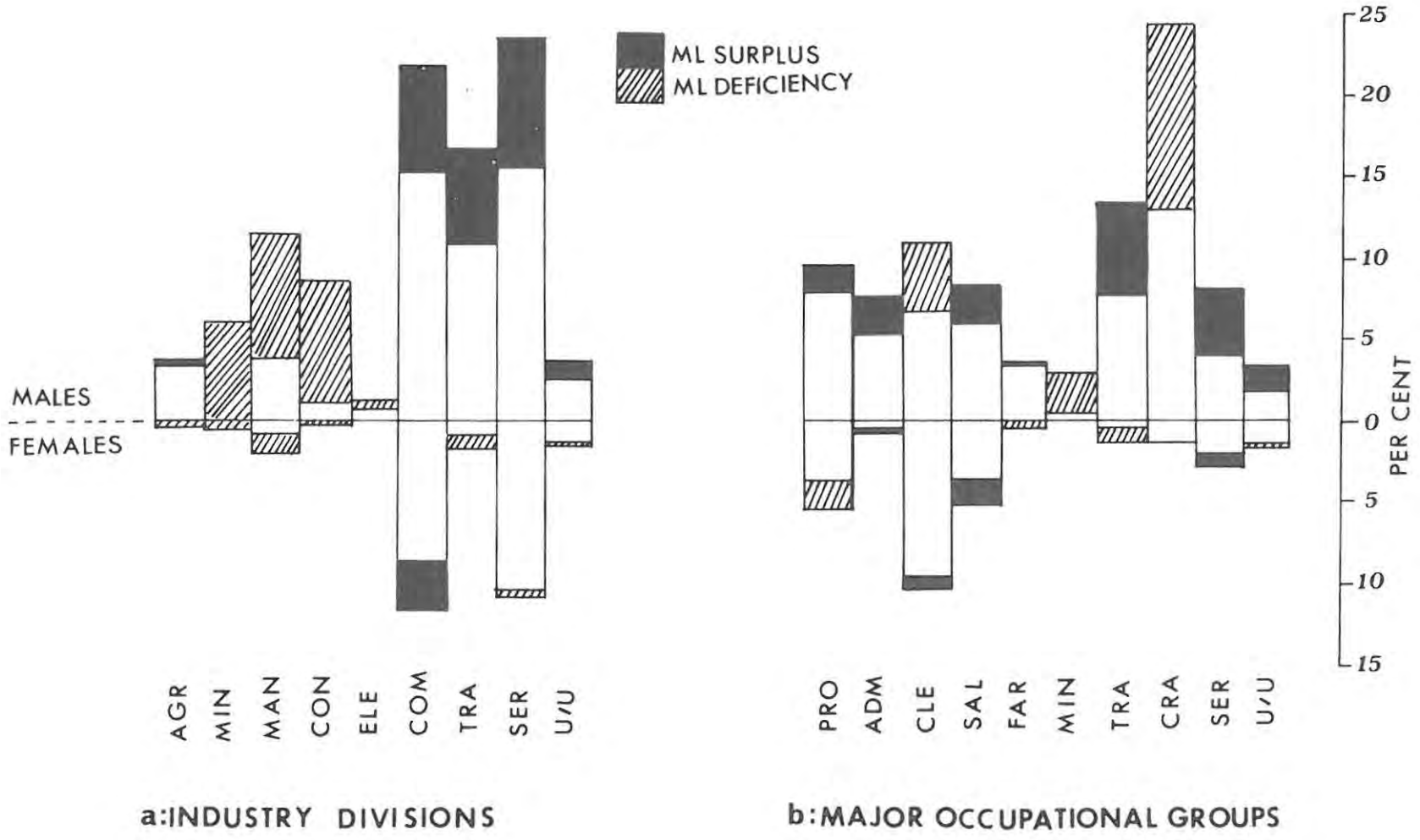
Industry Divisions	Midlands (U) 1969		"Other Urban" 1960	
	Males	Females	Males	Females
Agriculture	3.6	-	3.4	0.2
Mining	-	-	6.0	0.3
Manufacturing	3.8	0.9	11.4	2.0
Construction	1.0	-	8.6	0.1
Electricity	0.6	-	1.1	-
Commence	21.8	11.7	15.2	8.7
Transport	16.8	0.9	10.9	1.7
Services	23.6	10.5	15.4	10.9
Unemployed & Unspecified	3.6	1.2	2.6	1.4
Total	74.8	25.2	74.6	25.3
Persons	2,381	805	174,575	59,165

Employment opportunities in the Midlands towns thus appeared to be concentrated overwhelmingly in the tertiary sector. The Midlands urban economy was therefore supported, internally, mainly by commerce, transport and services, with an almost negligible primary and secondary base, both in absolute terms and in relation to the "other urban" areas of South Africa. The economy of the Midlands towns was, of course, also supported by an external agricultural base, situated in the surrounding rural areas. Apart from the generally problematic nature of the relationship between primary production and regional economic viability, the rural Midlands is a predominantly wool-producing area,[139] and, at the time of writing, this product appears to be facing a somewhat uncertain future.[140]

The occupational distribution of the working populations of the Midlands sample towns and the "other urban" areas of South Africa is shown in Table 85 and Figure 38 (b).

Except for the occupations "farmer etc." and especially "miner, etc.," the various occupational groups all featured fairly prominently in the sample towns. The group "craftsman, etc." was, however, conspicuously underrepresented vis-à-vis the "other urban" areas, which follows from the Midlands regions relative dearth of secondary industries. Consequently the remaining major occupational groups mainly tended to be overrepresented in the Midlands towns. Although the level of unemployment in the sample towns appeared to be above that in the "other urban" areas, this cannot be interpreted as a consequence of deficient local unemployment apportunities relative to the number of work-seekers. The main impression of the structure of the Midlands urban labour force is rather the very pronounced limitation of employment outlets to tertiary industries and occupations.

FIG. 38: ECONOMICALLY ACTIVE POPULATION – ML and OU



a: INDUSTRY DIVISIONS

b: MAJOR OCCUPATIONAL GROUPS

TABLE 85: MAJOR OCCUPATIONAL GROUPS OF ECONOMICALLY ACTIVE POPULATION (PER CENT)

Major Occupational Groups	Midlands (U) 1969		"Other Urban" 1960	
	Males	Females	Males	Females
Professional, technical and related worker	9.6	3.7	8.0	5.5
Administrator, executive and managerial worker	7.7	0.8	5.3	0.6
Clerical worker	6.8	10.2	10.9	9.7
Sales worker	8.4	5.1	6.0	3.7
Farmer, fisherman, lumberman, etc.,	3.6	-	3.4	0.2
Miner, Quarryman and related worker	0.5	-	3.0	-
Worker in transport and communication	13.3	0.3	7.9	1.2
Craftsman, production worker and labourer	13.1	1.2	24.3	1.2
Service, sports and recreation worker	8.1	2.8	4.0	1.9
Unemployed and unspecified	3.5	1.2	1.9	1.3
TOTAL:	74.6	25.3	74.7	25.3

Table 86 gives the percentage distribution of the Midlands labour force in in terms of the personal income earned during the year which preceded the 1969 survey.

The median income for male workers was R2,600 and that for female workers R1,120, excluding persons who earned no income and those whose incomes could not be specified. (Unfortunately the latter formed a comparatively large portion of the total labour force, namely, 13.6 per cent.) These figures represent a substantial increase over the median incomes yielded by the 1960 Census for the Midlands urban labour force, which were R1,660 and R740 for males and females, respectively. (See Chapter IV, Table 53.) The general shift towards higher income levels during 1960-69, shown in Figure 39, also served to increase the intraregional variation in income distribution: In 1960 the male distribution had a mean value of R1,990 and a standard deviation of 160.3. The rise of the mean value to R3,110 in 1969 was then also accompanied by an increase in the standard

FIG.39:PERSONAL INCOME DISTRIBUTION – ML URBAN

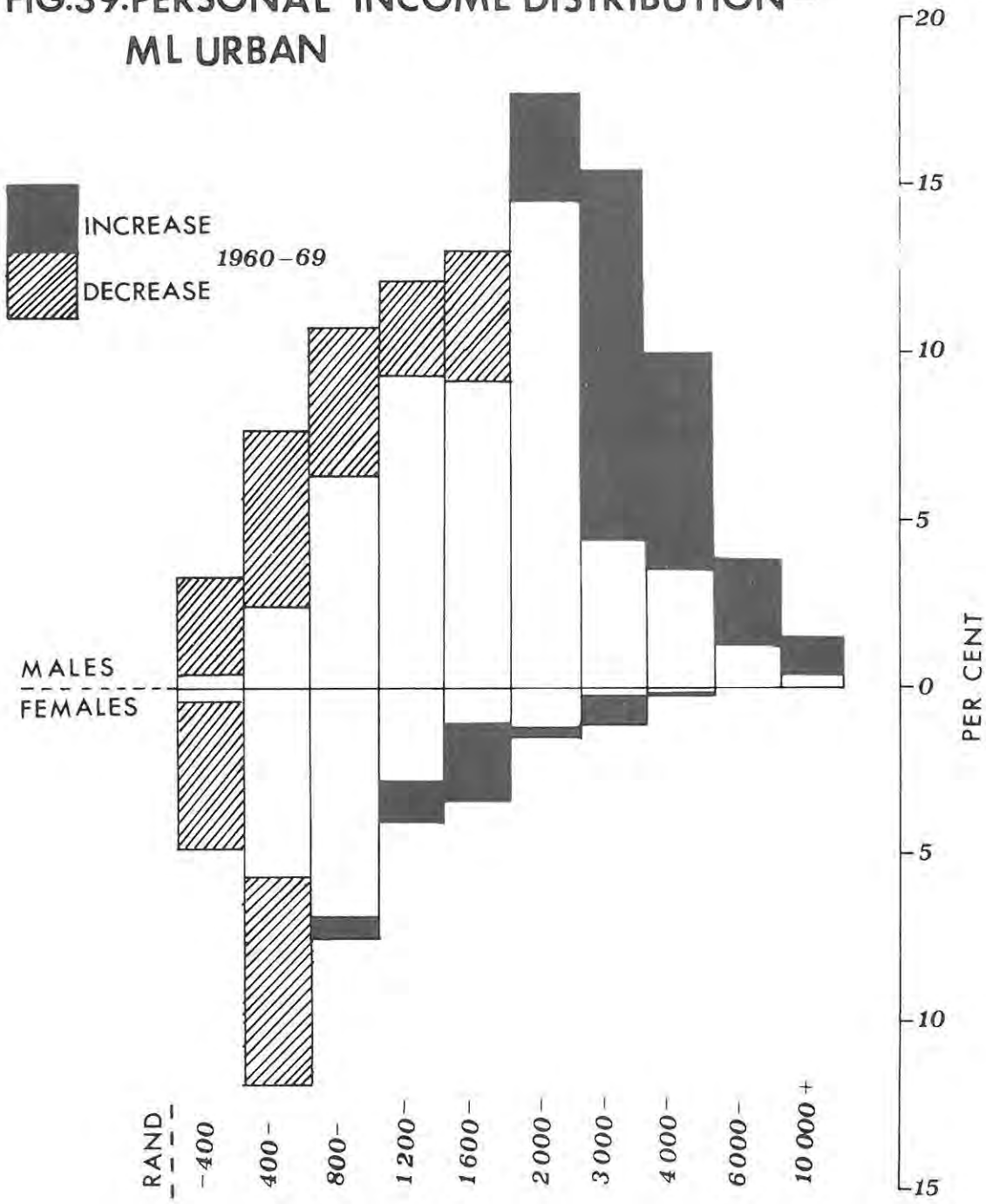


TABLE 86: ECONOMICALLY ACTIVE POPULATION OF MIDLANDS TOWNS BY PERSONAL INCOME (PER CENT) 1969

Income (Rand)	Males	Females
None	3.4	2.7
-400	0.3	0.3
400 - 799	1.9	4.6
800 - 1199	5.0	6.0
1200 - 1599	7.5	3.3
1600 - 1999	7.3	2.8
2000 - 2999	14.2	1.2
3000 - 3999	12.4	0.9
4000 - 5999	8.0	0.2
6000 - 9999	3.1	-
10,000 +	1.2	-
Unspecified	10.3	3.3
Total	74.6	25.3

deviation to 227.7. The 1960 Midlands urban female income distribution had a mean value of R870 and a standard deviation of 102.4, the corresponding figures for 1969 being R1,320 and 152.0.

Male median income in the Midlands towns thus rose by some 57 per cent during 1960-69 (the increase in the mean being 56 per cent) and female median income by 51 per cent (52 per cent in terms of the mean). During the same period current personal income in South Africa rose by some 91 per cent. Although these figures are not strictly comparable, there appears to be no evidence of a narrowing of the regional/ national income gap during recent years.

From the sample it was possible to estimate the median income carried by each of the major occupational groups in the Midlands towns. This information was not available from the 1960 Census, but on the assumption that all male and female income figures had increased by 57 and 51 per cent, respectively, during 1960-69, approximate values were thus obtained for the year 1960. The two sets of median incomes are reproduced in Table 87 below.

Compared to the national schedules of median incomes for (all) urban areas (See Chapter IV, Table 52), the following may be noted with regard to the ranking and level of the regional incomes in Table 87: In the case of male incomes, professional etc. occupations carried the highest remuneration in the Midlands towns, while the income attached to administrative etc. occupations ranked first in urban South Africa as a whole. The latter occupations ranked third in the Midlands towns, where they were also superseded by farming occupations, which ranked no higher then the eighth position on the national income scale. For the remainder there was fairly close agreement between regional and national male income rankings. (The regional earnings attached to the occupational group "miner, etc." should be disregarded on account of the small number of observations involved).

TABLE 87 : MEDIAN PERSONAL INCOME (RAND) BY MAJOR OCCUPATIONAL GROUPS, MIDLANDS SAMPLE TOWNS

Major Occupational Groups	1969		1960	
	Males	Females	Males	Females
Professional, technical and related worker	3,910	1,890	2,500	1,250
Administrative, executive and managerial worker	3,700	3,500*	2,360	2,310*
Clerical worker	2,420	1,040	1,550	690
Sales worker	3,220	380	2,060	250
Farmer, Fisherman, lumberman, etc.	3,800	-	2,430	-
Miner, quarryman and related worker	2,000*	-	1,280*	-
Worker in transport and communication	1,900	1,600*	1,210	1,060*
Craftsman, production worker and labourer	1,930	1,000	1,230	660
Service, sports and recreation worker	1,850	1,070	1,180	710

* Figures not significant because of small number of observations.

With the exception of farming occupations, the estimated 1960 male income levels in the Midlands towns were lower than those in South Africa's urban areas as a whole. Continuous net out-migration did therefore not appear to have been generally successful in eliminating regional income differentials up to 1960; these may indeed have increased even further since then.

No clear picture emerges from a comparison of regional and national female urban income patterns. No female workers were recorded for the Midlands in the two occupational groups "farmer etc." and "miner etc.", and in the groups "administrative, etc.," and "worker in transport and communication" the number of local observations was too small for any meaningful conclusions. The extremely low Midlands figure for the occupational group "sales worker" (estimated at R250 in 1960) would appear to be jointly attributable to female part-time employment and low profit margins earned by working proprietors in retail trade. In the case of "professional, etc." and "service" occupations, the estimated female median income values exceeded their national counterparts for 1960, this order of things being reversed for the groups "clerical worker" and "craftsman, etc."

The ratio of employer- to employee- income in the Midlands towns rose from 1.39 for males and 1.56 for females in 1960 to 1.54 and 1.62, respectively, in 1969. (See Chapter IV, Table 54.) During the same period the share of employers in the total labour force appeared to have increased from 13 to 19 per cent, thus suggesting a relatively greater net out-migration of employees than employers from the region.

(b) Migratory characteristics

It has emerged from this study that the Midlands towns have been experiencing a continuous net loss of migrants, especially of younger working ages. It seems probable that this process has also been taking place in many other small South African towns. There is, however, comparatively little direct information available about the gross volume of migration and the nature thereof, which is occurring within the Republic.

From his study of the White population of King William's Town, conducted in 1962, Watts concluded the following: "It seems clear that migration must be an important element in the life of both the individual and the community throughout present-day South Africa, and that the scale of migration is surprisingly extensive, even in small towns."[141] These findings were endorsed by a similar research project undertaken by Watts in East London during 1964.[142] As both these centres are situated in the Eastern Cape Province, Watts' results are of some considerable interest in the present context. At the time of the surveys concerned, the permanent non-institutional White population of the various sample centres was estimated to be the following:

East London (1964)	45,900
King William's Town (1962)	5,200
Cradock (1969)	4,500
Graaff-Reinet (1969)	4,200
Steynsburg (1969)	870
Aberdeen (1969)	810

The migratory data obtained from the surveys thus relate to an urban hierarchy within the Eastern Cape Province, ranging from a sizeable city to a small rural town of less than one thousand permanent White inhabitants. In the present study the data for the four Midlands towns are treated as a weighted mix, which will be related, where possibe and appropriate, to similar data for the two larger urban places. The analysis which follows here is broadly conducted in terms of population turnover, migratory background, details concerning the move to the sample towns, the selectiveness of migration and intentions concerning future migration.

It appears from Table 88 that 11.6 per cent of the estimated adult population of the Midlands sample towns had lived there all their lives, while 41.5 per cent had lived there less than 10 years. The latter figure exceeded those for both East London and King William's Town (29.6 and 29.2 per cent, respectively).

If the figure of 41.5 per cent is taken to represent the gross volume of adult in-migration into the Midlands towns during a period of 10 years (1959-69), it follows that rate of population turnover (sum of in- and out-migrants/base population) must have been very high indeed. On the basis of previously calculated data, it seems probable that the Midlands region as a whole may have experienced

net out-migration of adults of the order of some 18 per cent of its (adult) base population during this period.[145] If this figure is assumed to be appropriate to the four sample towns as well, then their rate of population turnover during 1959-60 should have been very close to 100 per cent.

TABLE 88 : ADULT POPULATION BY LENGTH OF STAY IN SAMPLE TOWN (PER CENT)

Length of stay (years)	Midlands			Cumulated Total		
	Males	Females	Total	ML(1969)	EL(1964)[143]	KWT(1962)[144]
0- 4	9.8	13.8	23.6	23.6	17.5	15.4
5- 9	9.1	8.8	17.9	41.5	29.6	29.2
10-14	9.9	10.4	20.3	61.8	52.3	55.7
20-29	3.5	8.4	11.9	73.7	74.3	67.7
30-39	3.5	3.8	7.3	81.0	87.8	
40+	3.9	3.6	7.5	88.5	100.0	100.0
All Life	5.8	5.8	11.6	100.0		
Total	45.5	54.6	100.0			
Persons	1,336	1,600	2,936			

Adult population turnover therefore appeared to have been greater in the Midlands towns than in the two larger urban places in the Eastern Cape Province. The median value for the length of stay in the respective centres was: Midlands 11.7 years (males 11.3; females 11.8 years), East London 13.6 years and King William's Town 13.1 years.

Net migration also appeared to have represented a considerable proportion of the gross migration which had been taking place to and from the Midlands towns. Even if the assumed figure of 18 per cent may be somewhat too high in the present context, the number of net out-migrants in the total body of migrants should have been of an appreciably higher order than the 5 or 10 per cent which has, for example, been observed for certain areas in England.[146]

For both sexes taken together, the mean number of places lived in by the adult population of the Midlands sample towns was 3.8, the same figure as for East London, that for King William's Town being 3.7 places.[147] For the Midlands, the mean number of places lived in before and after reaching 18 years of age was 1.6 and 2.2, respectively. The corresponding mean number of moves made was therefore 0.6 and 2.2, respectively, thus indicating a significant acceleration in mobility after the attainment of adulthood.

Those who had lived in the Midlands for shorter periods generally appeared to have had a more mobile background than the local residents of longer standing, with almost no significant difference between overall male and female mobility.

To a considerable extent, total population turnover would therefore appear due to the presence of a "revolving" group of in-and-out-migrants who stay in town for comparatively short periods of time.

TABLE 89 : MEAN NUMBER OF PLACES LIVED IN BY THE ADULT POPULATION, BEFORE AND AFTER 18 YEARS OF AGE, ACCORDING TO LENGTH OF STAY IN MIDLANDS SAMPLE TOWNS

Length of Stay (years)	Males			Females			Total		
	-18	18+	All Life	-18	18+	All Life	-18	18+	All Life
0- 4	1.8	3.5	5.3	2.0	3.2	5.2	1.9	3.3	5.2
5- 9	1.6	2.6	4.2	1.7	2.9	4.6	1.7	2.7	4.4
10-19	1.8	2.7	4.5	1.7	2.2	3.9	1.8	2.4	4.2
20-29	1.5	2.5	4.0	1.6	1.6	3.2	1.5	1.9	3.4
30-39	1.7	2.0	3.7	1.6	1.2	2.8	1.7	1.6	3.3
40+	1.2	1.2	2.4	1.7	1.6	3.3	1.5	1.4	2.9
All life	1.0	-	1.0	1.0	-	1.0	1.0	-	1.0
Total	1.6	2.3	3.9	1.7	2.1	3.8	1.6	2.2	3.8

TABLE 90: ADULT POPULATION BY MEAN LENGTH OF STAY PER PLACE (PER CENT)

Mean length of stay (years)	Midlands			Cumulated Total		
	Males	Females	Total	ML(1969)	EL(1964)	KWT(1962)
0- 2	0.7	0.5	1.2	1.2		0.3
3- 5	4.5	5.0	9.5	10.7	37.7	11.9
6- 9	11.3	11.1	22.4	33.1		33.0
10-14	11.4	11.6	23.0	56.1	58.2	51.8
15-19	5.3	6.8	12.1	68.2	69.0	65.6
20-24	3.2	4.7	7.9	76.1	75.8	75.7
25-29	2.4	3.7	6.1	82.2	79.3	82.0
30-39	2.7	5.7	8.4	90.6		91.5
40+	4.2	4.4	8.6	99.2	100.0	100.0
Unspecified	0.2	0.6	0.8	100.0		
Total	45.9	54.1	100.0			

It appears from Table 90 above that about one-third of the total adult Midlands urban population had spent less than 10 years, on average, in each place where they had lived. This corresponded very closely with the figure for King William's Town, while that for East London was somewhat higher (37.7 per cent). Half of the Midlands population had spent less than 12.9 years per place (males 12.3; females 13.6 years), the corresponding values for East London and King William's Town being 12.4 and 13.6 years, respectively. On the strength of the above information, adult Midlands males thus appeared to have been marginally more mobile than adult females.

Mobility is related to distance in Table 91, where the distance covered between the sample town concerned and the last place of residence prior to the move is measured in kilometres in a straight line. (Migrants from abroad and unspecified places have been excluded).

TABLE 91 : ADULT POPULATION BY DISTANCE FROM LAST PLACE OF RESIDENCE TO SAMPLE TOWN (PER CENT)

Distance (km)	Males	Females	Total
Did not leave town	5.9	5.9	11.8
0- 49	5.1	6.9	12.0
50- 99	5.1	9.4	14.5
100-199	7.7	8.5	16.2
200-499	13.0	14.4	27.4
500-999	8.1	8.7	16.8
1,000+	0.7	0.7	1.4
Total	45.6	54.5	100.0
From ML region (rest)	17.6	23.8	41.4
Mean distance (km)	285	265	274

The mean distance travelled by males (285 km) was somewhat farther than that travelled by females (265 km) to the Midlands sample towns concerned. Of the total adult population, an estimated 41.4 per cent were in-migrants from (other) places within the Midlands region. Taking this figure in conjunction with the 11.8 per cent of adult residents who had never left the sample towns concerned, it appears that over one-half of the towns' permanent adult population possessed strong ties with the Midlands region as a whole.

If the mean distance travelled may be taken as a measure of the power of attraction of a given place of destination, then the drawing power of East London (mean distance travelled = 502 km) was clearly greater than that of the Midlands

towns (274 km). The corresponding figure for King William's Town (264 km) fell, however, somewhat short of the average Midlands figure, which stresses the hazards of an uncritical acceptance of crude distrance as an indication of the diverse obstacles encountered by migrants. The fact that many migrants to the Midlands sample towns came from places where these towns were relatively well-known may possibly have served to reduce the effective distance, in terms of intervening obstancles, which they had to cover. Alternatively, it may simply not be feasible to establish a definite hierarchy of drawing power for places with a population below a certain level.

TABLE 92 : ADULT POPULATION BY TYPE OF PLACE OF RESIDENCE BEFORE THE MOVE TO SAMPLE TOWN (PER CENT)

Type of Place	Males	Females	Total
Sample town	5.9	5.9	11.8
Farm	4.9	7.5	12.4
- 1,000*	1.6	1.3	2.9
1,000-5,999*	12.2	14.0	26.2
6,000 +*	10.4	15.9	26.3
Metropolitan	10.3	10.1	20.4
Total	45.3	54.7	100.0
Midlands region (rest)	17.5	23.8	41.3

* Total White population at the time of the 1960 Census

Of all adults living in the sample towns, only 12.4 per cent had come directly from farms. Just under 30 per cent came from towns with a total White population (in 1960) of less than 6,000 persons, that is, towns with more or less the same population size as the sample towns themselves. About 47 per cent of the adult residents came from towns and cities larger than the sample towns.

It is therefore apparent that the bulk of the in-migration into the Midlands towns was characterized by an inter-urban movement, rather than a population shift from rural to urban areas. Broadly similar background patterns were found for the in-migrants into East London and King William's Town, although these centres drew a somewhat larger proportion of adult persons directly from rural areas.[150] In general, the available evidence does strongly suggest that large-scale inter-urban movements of White persons are taking place within South Africa.

Table 93 summarises the reasons given for the move to the Midlands towns, East London and King William's Town.

Economic motivation (reasons 1 and 2) featured prominently in all three cases: excluding those who had never left town, 33.7 per cent of all adults who had moved to the Midlands towns, had done so primarily for economic reasons. The corresponding figures for East London and King William's Town were 34.0 and 27.5 per cent, respectively. Those who had moved with their parents or spouse, that is,

where the elements of personal volition, and decision were at their weakest, were 39.3 per cent for the Midlands, 40.2 per cent for East London and 39.5 per cent for King William's Town. (Such persons could therefore be described as "secondary" migrants). For reasons other than the first four given in Table 93, the distribution differed considerably for the three areas of destination. Health reasons featured more prominently in the Midlands, while those who had come there for educational reasons or returned to the town because they missed it, were an almost negligible minority.

TABLE 93 : ADULT POPULATION BY REASON FOR MOVING TO SAMPLE TOWN (PER CENT)

Reason for moving to sample town	MIDLANDS			E. L.[151]	KWT.[152]
	Males	Females	Total	Total	Total
1 To get a job or start business	13.4	3.7	17.1	16.7	16.0
2 Transferred by employer	12.5	0.3	12.8	11.4	7.2
3 Moved with parents	3.4	5.0	8.4	16.1	17.9
4 Moved with spouse	-	26.4	26.4	17.1	15.5
5 To be near relatives	2.2	2.4	4.6	1.8	5.0
6 Health reasons	4.0	5.0	9.0	3.0	5.0
7 Retired to town	2.6	1.8	4.4	4.4	1.2
8 Educational reasons	-	0.3	0.3	1.2	3.5
9 Missed town (returned)	0.5	-	0.5	3.5	2.7
10 Other and unspecified	0.9	4.1	5.0	7.4	10.5
11 Never left town	5.7	5.7	11.4	17.4	15.5
Total	45.2	54.7	100.0	100.0	100.0

It thus appears that although the Midlands is noted for its educational institutions, few of those who come there from places beyond the region choose to remain once their education/training has been completed. Also, by far most of those who leave the Midlands towns, do not return to them. (The proportion of persons who had come for educational reasons and for the purpose of retirement should presumably be greater for Subregion III, where Grahamstown and Port Alfred are situated).

Taking the two sexes separately, economic reasons predominated in the case of Midlands male in-migrants: 65.6 per cent of all male movers had come for reasons 1 and 2 in Table 93. In the case of female in-migrants reasons of kinship predominated: 71.0 per cent of all adult females had moved either with their parents

or husband, and another 4.9 per cent had wished to be near their relatives. These trends were also broadly applicable to the male and female in-migrants to East London and King William's Town.[153]

Although direct evidence is not available from the surveys conducted, it seems probable that the moves made by "secondary" migrants, that is, for reasons of kinship, largely represent economic motivation on the part of "primary" migrants, or the actual decision-takers. "On this basis it is considered highly likely that reasons for migratory moves made by Whites in South Africa are almost entirely due to economic forces, and occupational needs and changes. The economic determinism completely overshadows all other motives for migration. This suggests that the prediction of migratory moves is only possible when something is known about the economic structure and processes involved in the regions concerned. This ties up very well with the basic assumptions underlying some well-known theories of migration."[154]

TABLE 94 : IN-MIGRANTS BY AGE AT THE TIME OF MOVING TO MIDLANDS SAMPLE TOWNS (PER CENT)

Age group	Males	Females	Total
-18	3.8	5.3	9.1
18-19	1.6	1.0	2.6
20-24	7.6	8.1	15.7
25-29	6.2	9.3	15.5
30-34	6.6	6.8	13.4
35-39	6.3	7.3	13.6
40-44	3.6	5.2	8.8
45-49	1.4	3.1	4.5
50-54	2.1	3.3	5.4
55-59	3.2	1.4	4.6
60-64	0.6	3.5	4.1
65+	1.6	1.1	2.7
TOTAL	44.6	55.4	100.0
Median age (years)	31.8	32.4	32.1

Table 94 reflects the age-selectivity of the migration into the Midlands sample towns. One-half of all the movers were over 32.1 years of age (males 31.8, females 32.4 years) when they arrived in the Midlands towns, with 58.2 per cent of

these migrants falling into the age bracket 20-39 years. The average age of newcomers to King William's Town was 37.7 years,[155] which should be a fairly close approximation of the average Midlands figure as well. (Disregarding those who fell into the open-ended age brackets -18 and 65+ years, the average age of the Midlands in-migrants was 35.4 years).

The selected adults were also asked whether they intended to remain in the Midlands towns permanently, or to leave them soon or eventually. The resulting answers are given in Table 95, according to the length of time already lived in the sample towns.

TABLE 95 : DISTRIBUTION OF MIDLANDS ADULTS ACCORDING TO INTENTION TO REMAIN IN OR LEAVE SAMPLE TOWN, BY LENGTH OF STAY THERE (PER CENT)

Length of stay (years)		Stay on permanently	Leave soon	Leave eventually	Undecided	Total
0-4	M	2.2	3.2	3.9	0.6	9.9
	F	3.1	3.5	5.3	1.8	13.7
5-9	M	3.0	1.6	4.1	0.5	9.2
	F	3.7	1.3	3.8	-	8.8
10-19	M	5.4	1.0	3.1	0.5	10.0
	F	7.3	-	2.0	1.0	10.3
10-29	M	2.0	-	1.0	0.5	3.5
	F	6.8	0.3	0.8	0.3	8.2
30-39	M	2.0	-	0.9	0.6	3.5
	F	2.8	-	1.0	-	3.8
40+	M	3.6	-	-	0.3	3.9
	F	2.8	-	0.3	0.5	3.6
All life	M	3.6	0.6	1.0	0.6	5.8
	F	4.5	0.3	0.5	0.5	5.8
Total	M	21.8	6.4	14.0	3.6	45.8
	F	31.0	5.4	13.7	4.1	54.2
	T	52.8	11.8	27.7	7.7	100.0

It appears from the figures tabulated above, that 52.8 per cent of the adult de jure population expressed the wish to remain in town permanently, while 39.5 per cent intended to leave sooner or later, with 7.7 per cent undecided. In general, the wish to stay on permanently seemed to become stronger with the number of years already spent there : while only 22.6 per cent of those who had lived in town less than five years intended to remain there permanently, the corresponding figure for residents who had lived there between 10 and 19 years was 62.7 per cent, and that

for residents of more than 40 years' standing 85.4 per cent. Of all those who intended to stay on permanently, persons who had lived in town less than 10 years formed 22.7 per cent, this group accounting for 81.2 and 61.8 of the persons who intended to leave soon and eventually, respectively. Intended migration was more pronounced for male than female persons, as 57.2 per cent of all females intended to remain in the sample towns permanently, compared to a male figure of 47.6 per cent.

Both East London and King William's Town appeared to have a greater capacity to retain their population, the proportion of all adults who intended to stay on there permanently being 62[156] and 60[157] per cent, respectively.

In certain respects there were thus no major differences between the migratory characteristics of the adult de jure population of the Midlands towns and the two larger population centres in the Eastern Cape Province. This applied to the general migratory background of the persons concerned (Tables 89, 90), the inter-urban nature of migration (Table 92), the economic motivation of (primary) in-migrants (Table 93), the increase in mobility with the attainment of adulthood (Table 89) and the comparatively advanced average age at the time of the move to the sample centre (Table 94). The Midlands towns showed, however, a higher rate of population turnover (Table 88) together with a smaller capacity to retain their population (Table 95), a weaker drawing power (than East London) in terms of distance (Table 91) and a rather insignificant counterstream of migration (Table 93). The return stream may, however, have been somewhat stronger than suggested by Table 93; while 11.8 per cent of the Midlands adults had never left the sample towns, 18.8 per cent of them had actually been born there). Although male persons appeared to be marginally more mobile than females in some respects, these differences hardly assumed significant proportions in general.

III Adult persons who had permanently left the parental home (the second generation)

All the information pertaining to these persons was obtained at second hand, that is, from interviews conducted with their parents during the 1969 survey. As the information possessed by the parents about their absent children was deficient in several respects, it was not possible to compile any reliable statistics with regard to the income of the second generation, the number of moves which they had made after leaving the parental home, their mean length of stay per place and their intentions concerning future migration. For the same reason, all the data presented in this section should be treated with some circumspection.

Table 96 gives the sex and age distribution of an estimated body of 3,192 persons (males 1,661; females 1,531), aged 18 years and over, who had permanently left the parental home and whose parents were living in the Midlands sample towns at the time of the 1969 survey. Of these persons, an estimated number of 789 (males 408; females 381) were living within the Midlands region and 2,403 (males 1,253; females 1,150) outside it. (See also Table 82 and Figure 37). This information is reproduced in Figure 40, where the persons residing inside the Midlands region are indicated by the striped rectangles.

FIG.40: Persons 18+ who had left parental home

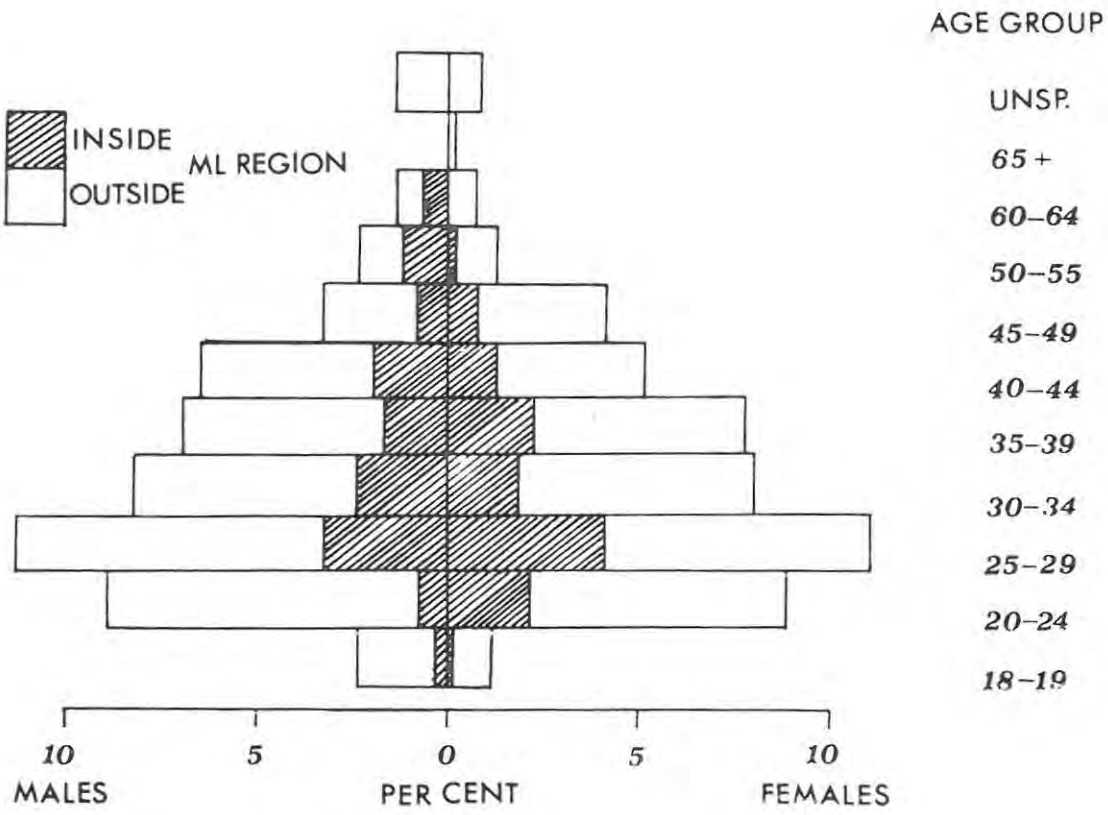


TABLE 96 : PERSONS AGED 18+ WHO HAD PERMANENTLY LEFT THE PARENTAL HOME (PER CENT), 1969

Age group	Males	Females	Total
18-19	2.3	1.0	3.3
20-24	8.8	8.7	17.5
25-29	11.1	10.9	22.0
30-34	8.1	7.9	16.0
35-39	6.9	7.8	14.7
40-44	6.4	5.1	11.5
45-49	3.2	4.1	7.3
50-54	2.3	1.2	3.5
55-59	1.3	0.7	2.0
60-64	-	0.2	0.2
65+	-	-	-
Unspecified	1.2	0.8	2.0
Total	51.6	48.4	100.0

Not all of the second generation members who were residing outside the Midlands in 1969, were out-migrants from the region in the proper meaning of the term; some 14 per cent of them had not accompanied their parents when the latter moved to the sample towns. (See also footnote 137). For the purposes of Tables 96-103, they have, however been aggregated with those who had indeed physically left the sample towns for destinations outside the Midlands region. Conceptually, the above 14 per cent may be included in the population loss to the Midlands, in the sense that they did not take up the option of following their parents when the latter decided to make their new home in the Midlands region.

Table 97 shows the industry divisions of the economically active Midlands "second generation" on a percentage basis. This distribution is compared to that of the economically active Midlands "first generation" (or permanent de jure population) in Figure 41 (a), for the year 1969. (See also Table 84).

Some rather fundamental differences emerge from the comparison in Figure 41 (a): The second generation showed a pronounced general surplus in primary and secondary employment vis-à-vis the first generation, the counterpart of which was a general deficiency in tertiary employment. Only in the tertiary industry division "services" was there a second generation surplus for both male and female workers.

TABLE 97 : INDUSTRY DIVISIONS OF MIDLANDS SECOND GENERATION (PER CENT), 1969

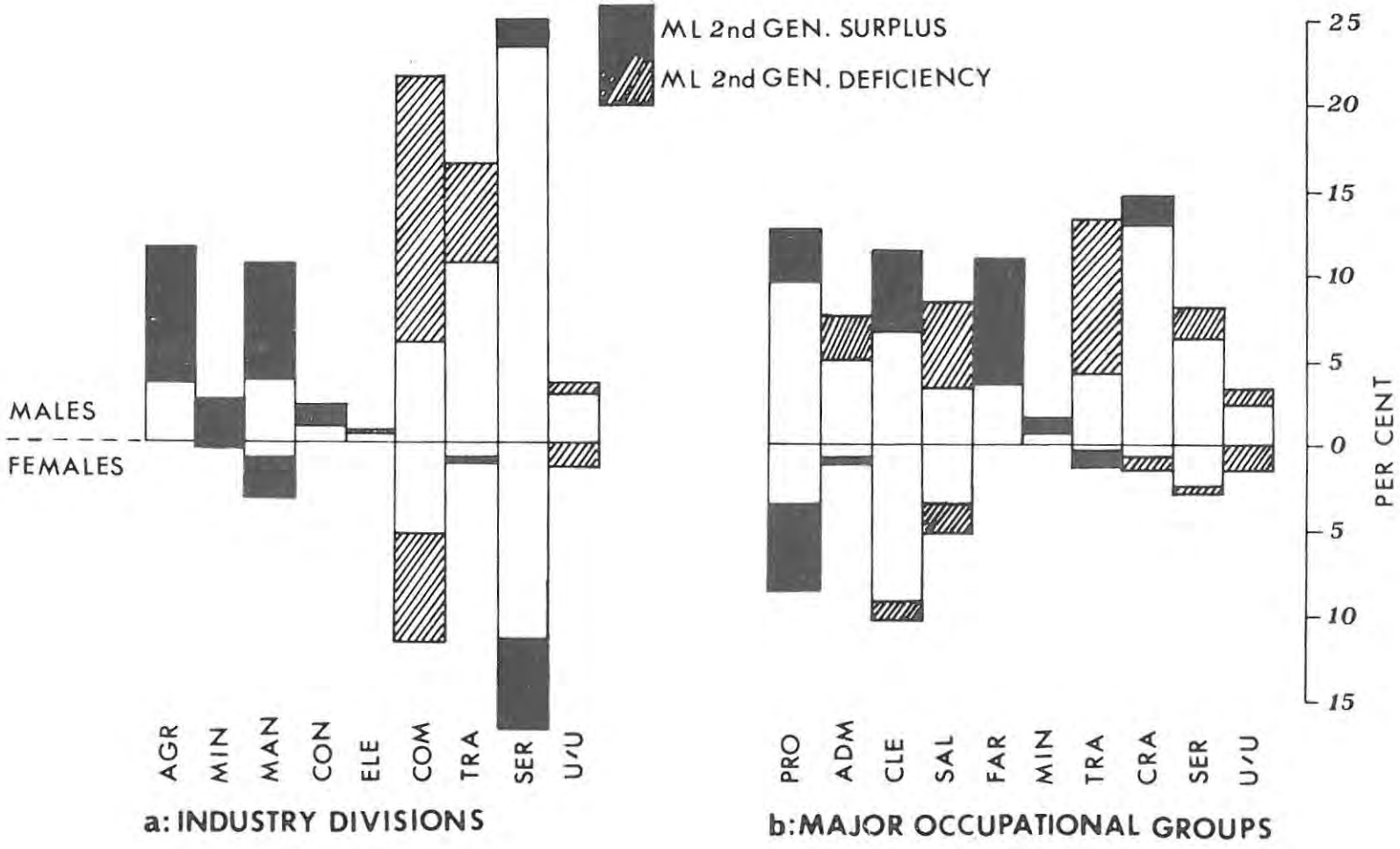
Industry Divisions	Males	Females	Total
Agriculture	11.6	-	11.6
Mining	2.5	0.4	2.9
Manufacturing	10.5	3.4	13.9
Construction	2.2	-	2.2
Electricity	0.4	-	0.4
Commerce	6.0	5.3	11.3
Transport	10.7	1.1	11.8
Services	26.1	16.9	43.0
Unemployed and unspecified	2.9	-	2.9
Total	72.9	27.1	100.0

The percentage distribution of the 1969 occupational structure of the Midlands second generation working population is given in Table 98, and compared to that of the Midlands first generation for the same year in Figure 41 (b). (See also Table 85.)

TABLE 98 : MAJOR OCCUPATIONAL GROUPS OF MIDLANDS SECOND GENERATION (PER CENT), 1969

Major Occupational Groups	Males	Females	Total
Professional, technical and related worker	12.8	8.6	21.4
Administrative, executive and managerial worker	5.0	1.2	6.2
Clerical worker	11.4	9.4	20.8
Sales worker	3.3	3.5	6.8
Farmer, fisherman, lumberman, etc.	11.0	-	11.0
Miner, quarryman and related worker	1.5	-	1.5
Worker in transport and communication	4.2	1.1	5.3
Craftsman, production worker and labourer	14.9	0.8	15.7
Service, sports and recreation worker	6.3	2.7	9.0
Unemployed and unspecified	2.4	-	2.4
Total	72.8	27.3	100.0

FIG.41: Economically Active Population – ML 1st and 2nd Generations



The second generation thus showed a surplus for both male and female professional, etc., occupations, which should presumably largely account for its observed surplus vis-à-vis the first generation in the industry division "Services". The second generation deficiencies in the occupational groups "administrative, etc." (males) and "sales worker" (males and females) should similarly, be seen against the background of its substantial deficiency in the industry division "Commerce". Another pronounced occupational deficiency vis-à-vis the first generation was observed in the occupational group "worker in transport and communication" (males).

On the whole, the structure of the second generation labour force appeared more favourable, in the sense of showing more balance towards productive activities, in contrast with the very marked bias towards service activities in the case of the first generation. Moreover, the second generation labour force also contained a proportionately greater share of (comparatively highly paid) professional, etc., occupations, coupled with a relatively smaller proportion of (comparatively lowly paid) transport and service jobs.

The industrial and occupational structure of the Midlands second generation (in 1969) is related to that of the South African labour force as a whole (in 1960) in Figure 42. (See also Tables 50, 51 and Figures 26, 27).

A comparison of the percentage industry divisions in Figure 42 (a) yielded a Midlands male surplus in agriculture and a small female surplus in mining, but an overall deficiency vis-à-vis the national labour force in secondary industries. The Midlands second generation showed a corresponding surplus in tertiary industries as a whole, which was due to the large proportion of workers in the division "Services". The occupational distribution in Figure 42 (b) again suggests the latter surplus to be due to a comparatively high rate of participation in professional etc., services. The greatest Midlands second generation occupationa deficiency was observed for the group "craftsman, etc.," which should be associate with its previously noted deficiency in the secondary industry divisions.

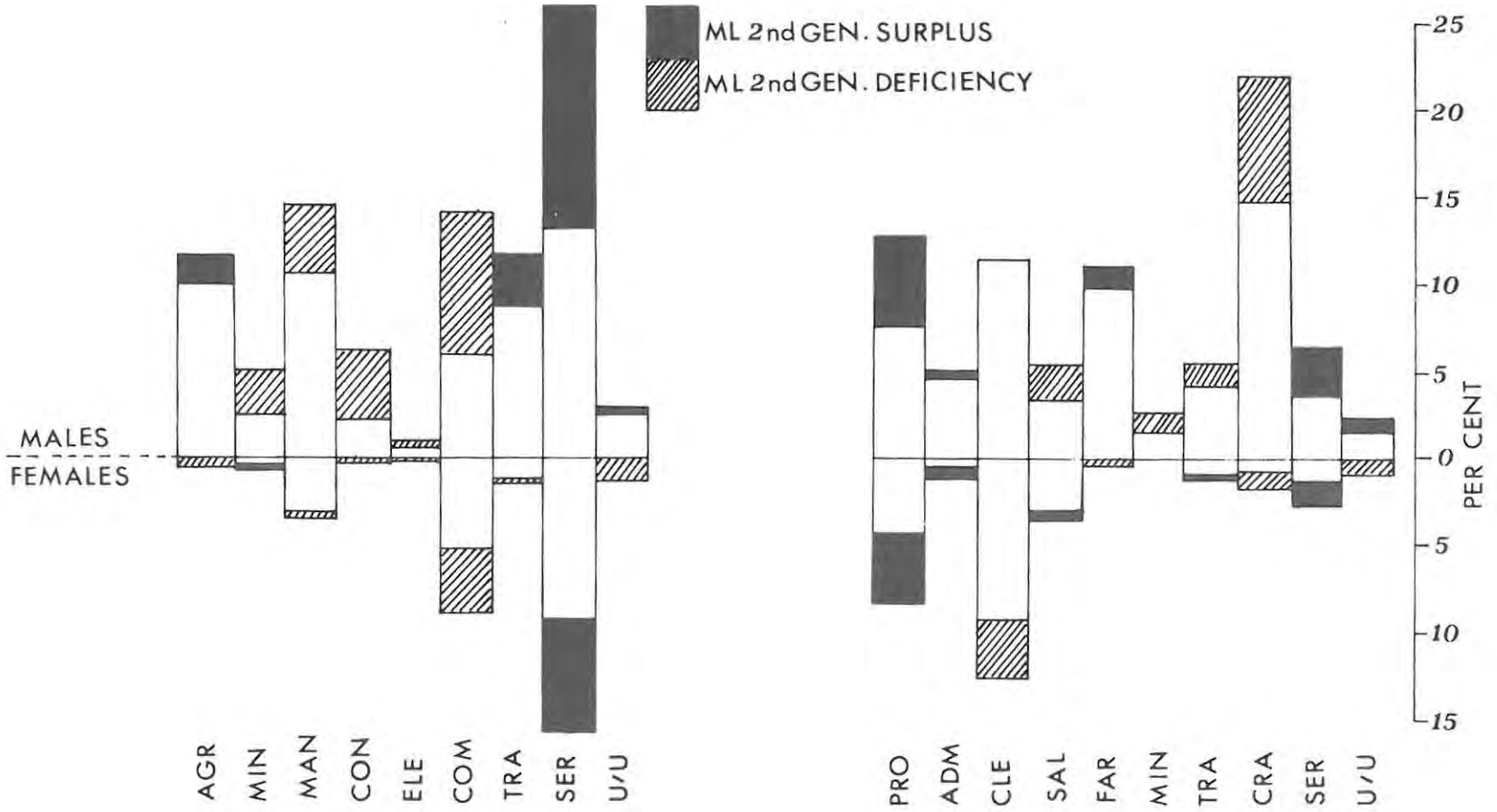
In terms of its industrial composition, the Midlands second generation labour force was therefore in an intermediate position between those of the Midlands first generation and South Africa as a whole. This is apparent from the following percentage comparison (where unemployed and unspecified workers have been excluded):

	ML 1st Gen. (1969)	ML 2nd Gen. (1969)	SA (1960)
Primary industries	3.8%	14.9%	16.2%
Secondary industries	6.6%	17.0%	26.6%
Tertiary industries	89.6%	68.1%	57.1%

The Midlands second generation showed greater participation in primary and secondary industries than the first generation, but fell short of the corresponding national participation levels, this order of things being reversed for the tertiary industries. Assuming that the structure of the national labour force may be regarded as characteristic of the population at the various places of destination taken together, these findings would therefore seem to confirm Lee's expectation that "the characteristics of migrants tend to be intermediate between the characteristics of the population at origin and the population at destination".[158]

With regard to the sex selectivity of migration, a small surplus of male out-migrants was observed among the members of the Midlands second generation

Fig.42:Economically Active Population– ML 2nd Gen. and SA



a: INDUSTRY DIVISIONS

b: MAJOR OCCUPATIONAL GROUPS

(See Table 96.) Selectivity by age, at the time of leaving the parental home, is shown in Table 99 below.

TABLE 99 : OUT-MIGRANTS BY AGE AT THE TIME OF LEAVING THE PARENTAL HOME (PER CENT)

Age group	Males	Females	Total
-18	8.6	5.7	14.3
18-19	13.0	13.3	26.3
20	6.5	9.3	15.8
21	6.1	6.9	13.0
22	5.3	3.5	8.8
23	3.4	2.1	5.5
24	1.8	1.6	3.4
25-29	2.7	2.3	5.0
30+	0.7	0.4	1.1
Unspecified	3.4	3.3	6.7
Total	51.5	48.4	100.0

For both sexes taken together, 14.3 per cent of the Midlands second generation had left the parental home before reaching the age of 18 years. The rate of out-migration rose up to the age of 20 years, after which a gradual decline set in. Only 1.1 per cent of the second generation left the parental home after having reached the age of 30 years.

The median age of leaving, for both males and females, was 20.4 years, which was in sharp contrast with the corresponding data for the male (31.8 years) and female (32.4 years) (first generation)in-migrants into the Midlands towns (See Table 94).

The phenomenon of migration, as such, thus serves to promote the process of demographic aging in the Midlands both directly and indirectly : directly because those who enter the region are, on average, a good deal older than those who leave it. Indirectly, because the in-migrants who remain there permanently will eventually contribute towards aging at the apex of the population pyramid, while the out-migrants contribute towards aging at the base of the pyramid through the loss of their future offspring.

Table 100 shows another selective aspect of migration, not discussed previously namely the highest level of education attained by those taken to represent the adult in- and out-migrants into the Midlands sample towns.

TABLE 100 : HIGHEST LEVEL OF EDUCATION OF ADULT MIDLANDS FIRST AND SECOND GENERATIONS (PER CENT), 1969

Highest Education Level	1st Generation		2nd Generation	
	Males	Females	Males	Females
None and unspecified	1.1	1.8	1.2	1.2
Up to standard 5	2.9	2.6	0.7	0.6
Standards 6 and 7	15.2	18.7	6.8	7.5
Standards 8 and 9	11.4	12.6	14.5	11.9
Up to standard 10	8.7	11.2	17.6	13.4
Bachelor's degree	2.2	0.9	4.2	1.6
Master's degree	0.3	-	0.4	0.2
Doctor's degree	-	-	-	-
Diploma with school education	4.0	5.4	5.9	11.4
Diploma with B. degree	0.7	0.1	0.3	0.6
Diploma with M. degree	-	-	-	-
Diploma with D. degree	0.1	-	-	-
Total	47.3	52.6	51.6	48.4

In the case of the first generation adults, an estimated 30.9 per cent had matriculated, that is, completed their education at least up to standard 10, while 4.3 per cent of them also possessed a university degree. The corresponding figures for the second generation adults, who had permanently left the parental home, were 50.1 and 7.3 per cent, respectively. Selectivity by education was thus clearly biassed against the Midlands. This state of affairs may be reinforced by the greater liklihood of the second generation pursuing further studies away from the Midlands, as compared to the first generation members who remain in the region.

The effective range of reasons for out-migration set out in Table 101, appears narrower than that in the case of in-migration (see Table 93), and is even more explicitly related to economic motivation. While reasons 1 and 2 accounted for 33.7 per cent of the in-migrants to the Midlands towns, they caused 65.9 per cent of the second generation to leave the parental home. The observed relationship between reason 1 ("To get a job or start a business") and reason 2 ("Transferred by employer") was also significant for the two respective generations. In the case of in-migrants, the persons who were transferred, that is, in whose case the element of personal volition was probably not very strong, formed some 40 per cent of all economically motivated movers to the sample towns. The corresponding figure for out-migrants was only some 4 per cent.

TABLE 101 : PERSONS WHO HAD LEFT THE PARENTAL HOME BY REASON FOR MOVING (PER CENT)

	Reason for Moving	Males	Females	Total
1.	To get a job or start a business	40.0	23.0	63.0
2.	Transferred by employer	2.7	0.2	2.9
3.	Moved with or to spouse	5.2	21.8	27.0
4.	Educational reasons	2.5	1.9	4.4
5.	Other and unspecified	1.2	1.5	2.7
	Total	51.6	48.4	100.0

The (statistical) inference that economic considerations, to a large extent, prompted people to migrate both to and away from the Midlands towns does, of course, obscure the selective characteristics of the migrants moving in opposite directions. While a region may, for example, offer relatively attractive prospect to more senior workers, it may at the same time lack adequate employment opportunities for young persons about to embark on a career.[159]

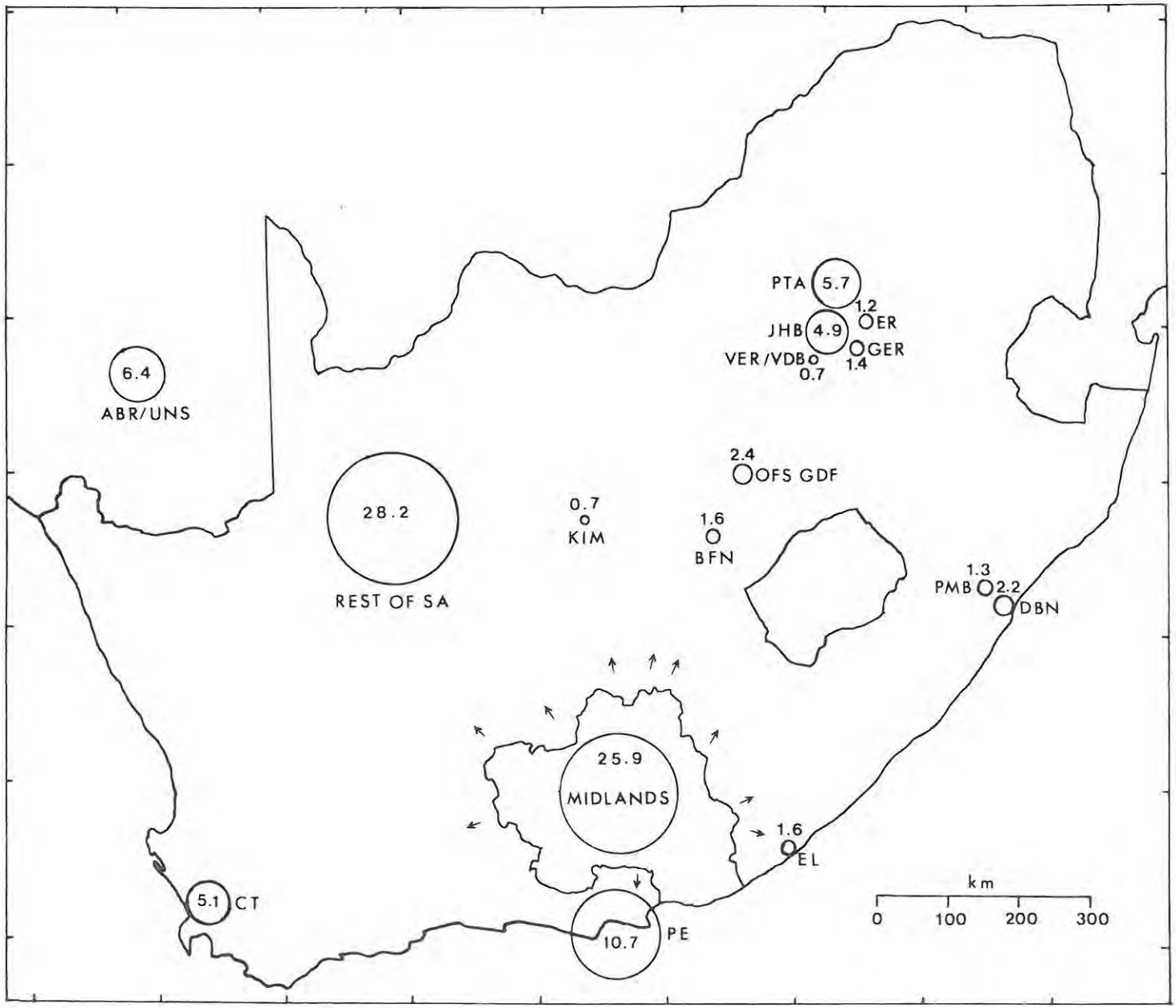
According to Table 101, moves with or to spouse (reason 3), accounted for some 27 per cent of all those who had left the parental home. While this reason was entirely absent for the male in-migrants (in Table 93), it did apply to some 5 per cent of the second generation males. Here again, the observed discrepancy should presumably be related to the age factor. While most in-migrants were already married men, some of those who left the parental home did so for the very reason of getting married and setting up a separate household. In the case of the female second generation members, moves with or to spouse were somewhat eclipsed by moves made for employment purposes, which was in sharp contrast with the reasons for migration of the first generation females (in Table 93).

The only remaining reason of any significance for second generation movers was that of obtaining education. The balance of those who leave the Midlands towns to receive education and do not return, therefore appreciably exceeds that of those who enter them for the same reason and do not leave. (Again, this conclusion may require some qualification for Subregion III).

Thus, the previously reached conclusion for the in-migrants to the Midlands towns, that "economic determinism completely overshadows all other motives for migration" (page 195) applies a fortiori to the body of out-migrants from the sample towns concerned.

The geographical distribution of the adult second generation members who had permanently left their parental homes in the sample towns is shown in Figure 43. An estimated 25.9 per cent of them were still residing within the Midlands region as a whole, with 6.4 per cent either abroad or in places which could not be specified. Some 39.5 per cent were living in South Africa's metropolitan areas, distributed as follows: Port Elizabeth 10.7, Pretoria 5.7, Cape Town 5.1, Johannesburg 4.9, Orange Free State Goldfields 2.4, Durban 2.2, Bloemfontein 1.6, East London 1.6, Germiston 1.4, Pietermaritzburg 1.3, East

Fig. 43: Geographical Distribution of Persons 18+ who had left parental home – PER CENT



Rand 1.2, Kimberley 0.7 and Vereeniging/Vanderbijlpark 0.7 per cent. The remaining 28.2 per cent were living in other urban and rural areas within the Republic.

This information is also shown, for the two sexes separately, in Table 102 (where persons living abroad and in unspecified places have been excluded).

TABLE 102 : SECOND GENERATION BY TYPE OF PLACE OF RESIDENCE (PER CENT) 1969

Type of Place	Males	Females	Total
Sample town	4.4	5.3	9.7
Farm	7.0	4.0	11.0
-1,000 *	5.7	4.7	10.4
1,000-5,999 *	7.7	8.7	16.4
6,000 + *	5.3	5.1	10.4
Metropolitan	21.5	20.5	42.0
Total	51.6	48.3	100.0
Midlands region (rest)	9.1	8.9	18.0

* Total White population at the time of the 1960 Census

A comparison of the above second generation residential distribution, by place of destination, with that of the first generation, by place of origin (See Table 92), yields the following impressions: In the case of the first generation, 11.8 per cent had never left the sample towns, while 9.7 per cent of the second generation members concerned were still living there in 1969. Also while the rest of the Midlands region had supplied 41.3 per cent of the members of the first generation, it had attracted only 18.0 per cent of the second generation. By contrast, South Africa's metropolitan areas supplied 20.4 per cent of the first and claimed 42.0 per cent of the second generation. 12.4 per cent of the first generation residents had come to the Midlands towns from farms, while 11.0 per cent of the second generation had gone to live on farms. (A good deal of this rural-urban movement may have been intraregional : while farmers from the surrounding district retire to town, urban second generation members again inherit or purchase farms in the surrounding district, or, in the case of females, move to such farming areas upon marriage.) Finally, some 55.4 per cent of the first generation originated from non-metropolitan towns, while 37.2 per cent of the second generation had departed for such places of destination. The outstanding impression of this comparison is therefore the large net gain of migrants by the metropolitan areas, especially bearing in mind that the absolute number of the out-migrants from the Midlands greatly exceeds that of the in-migrants into the region.

Table 103 relates the mobility of the Midlands second generation to the distance factor, that is, it shows the distance (measured along a radius) between the relevant sample towns and the places of destination of the second generation in 1969.

TABLE 103 : SECOND GENERATION BY DISTANCE FROM PLACE OF RESIDENCE TO SAMPLE TOWN (PER CENT), 1969

Distance (Km)	Males	Females	Total
Did not leave town	4.3	5.2	9.5
0 - 49	4.6	4.3	8.9
50 - 99	3.8	3.5	7.3
100 -199	3.9	6.0	9.9
200 -499	13.4	12.3	25.7
500 -999	20.9	17.3	38.2
1,000+	0.3	0.2	0.5
Total	51.2	48.8	100.0
Midlands region (rest)	9.1	8.1	18.0
Mean distance (km)	462	434	446

The mean distance travelled for both sexes together, was 446 kilometres (males 462 km; females 434 km). This was 172 kilometres (or about 63 per cent) farther than the mean distance travelled by the first generation migrants to the Midlands towns (See Table 91).

This observed difference would indicate that the places of destination (especially metropolitan) were far more attractive for the second generation, than were the Midlands towns for the first generation. It also suggests that the intervening obstacles to migratory streams, as represented by physical distance, have been reduced with the passage of time, as a consequence of better information, improved communications, etc.

The rest of this section is concerned with a more or less informal assessment of the relevance of certain basic elements contained in gravity models (See Chaper VI, Section I) to the migration from the Midlands towns to various destinations within the Republic. The discussion therefore concentrates on the variables of population size, income and distance. The calculations which follow here are based on simple aggregations of persons,as the weighting of small numbers could, in the present case, easily lead to distortion and misleading impressions.

The survey conducted in the four Midlands towns yielded direct information about a total number of 436 (adult) children who had permanently left their parental homes. Of this number, 69 had remained in the magisterial district where the respective sample towns are situated, 27 had moved either abroad or to places which could not be specified, while 46 persons living outside the sample towns had never actually resided there. The remaining 294 persons, or two-thirds of the original cohort, represented out-migrants "proper", in the sense that they had physically moved from their parental homes in the four sample towns to specified places of destination in South Africa, situated outside the magisterial district to which these respective towns belong.

The total number of places to which they went amounted to 86 different magisterial districts and metropolitan areas. 39 of these places had each attracted only one person from the Midlands towns, while 47 places had attracted from 2 to 40 persons each, the latter destinations thus accounting for 255 out-migrants from the sample towns.

The practical measurement of the force of attraction of the various places of destination and the intervening obstacles separating them from the (Midlands) places of origin, is limited by the availability of suitable published statistics. The former will be represented here by the (White) population and regional income (in 1960) of the magisterial districts and metropolitan areas concerned, and the latter by the physical distance in kilometres, measured along a radius, between the places of origin and destination.

In terms of gravity models in general, a comparatively large local population or income would then also cause relatively large numbers of migrants to "gravitate" towards such places - and vice versa. A relatively long distance between two given places of origin and destination would again be expected to impede the flow of migrants between them - and vice versa. The expected size of the migration flow between two places would therefore depend on the P1P2/D ratio (See Chapter VI, page 171)where the P values represent either population size or income, and the D value the intervening distance. In the present study P1 (the population or income at the place of origin) may be regarded as a constant, and the expected flow of migration will therefore be calculated simply on the basis of a P/D ratio (where P represents the population or income at the place of destination).

In the case of the 39 places which had attracted only one Midlands migrant each, the assumption of homogeneity on the part of the (39) persons involved, would require the attraction of the various places of destination to grow in proportion to the distance between them and the (Midlands) places of origin. These distances varied between 68 and 1,084 kilometres, yielding a mean distance of 509 kilometres. When attraction was measured in terms of local population size, a positive correlation coefficient of 0.3707 was obtained, compared to a positive correlation coefficient of 0.3718 when local income was taken to represent attraction. While distance and attraction thus tended to rise together, the increase in attraction fell considerably short of the increase in distance.

Not much significance should, however, be attached to this inference, partly because the absolute number of migrants involved was too small for drawing any meaningful conclusions. Moreover, the homogeneity assumption (with regard to the body of migrants) is clearly inappropriate, while there exists no practical method of identifying the seemingly random personal factors which were apparently largely decisive in the choice of a particular destination.

The correlation of <u>per capita</u> income with distance yielded a <u>negative</u> coefficien of -0.0322. While there was thus little difference between population and income as a measure of the attraction (or "mass") of a region, regional per capita income appeared to be quite inappropriate in this connection. The reason for this appears to be that a given regional level of per capita income is often the consequence rather than the cause of interregional migration.

Table 104 contains information pertaining to the 47 places each of which had attracted more than one migrant from the four sample towns. Column I gives the magisterial district or metropolitan area to which the migrants had gone. Column I shows the probability of migrating to a given place, calculated on the basis of its

TABLE 104 : OBSERVED AND EXPECTED NUMBER OF MIGRANTS ACCORDING TO PLACE OF DESTINATION, 1969

Place of destination	Pp/D Index	Py/D Index	Observed number	Expected number (II)	Difference	Expected number (III)	Difference
I	II	III	IV	V	VI	VII	VIII
Aberdeen	.0044	.0039	3	1	2	1	2
Adelaide	.0023	.0023	2	1	1	1	1
Albany	.0119	.0095	3	3	0	2	1
Albert	.0140	.0137	2	4	-2	3	-1
Aliwal North	.0048	.0040	2	1	1	1	1
Barberton	.0017	.0022	2	0	2	1	1
Beaufort West	.0116	.0094	2	3	-1	2	0
Bethlehem	.0048	.0047	2	1	1	1	1
Bloemfontein	.0443	.0398	7	11	-4	10	-3
Caledon	.0069	.0063	2	2	0	2	0
Cape Town	.1120	.1166	18	28	-10	30	-12
Colesberg	.0016	.0023	3	0	3	1	2
Cradock	.0156	.0148	4	4	0	4	0
De Aar	.0060	.0053	2	2	0	1	1
Durban	.0719	.0804	9	18	-9	21	-12
East London	.0451	.0411	7	12	-5	10	-3
East Rand	.0457	.0438	7	12	-5	11	-4
Engcobo	.0005	.0006	2	0	2	0	2
Germiston	.0285	.0280	5	7	-2	7	-2
Gordonia	.0083	.0045	2	2	0	1	1
Graaff-Reinet	.0251	.0207	6	6	0	5	1
Hoopstad	.0012	.0021	2	0	2	1	1
Humansdorp	.0094	.0058	4	2	2	1	3
Jansenville	.0057	.0055	3	1	2	1	2
Johannesburg	.1324	.1727	15	34	-19	44	-29
Kimberley	.0154	.0149	2	4	-2	4	-2
King William's Town	.0085	.0065	2	2	0	2	0
Kirkwood	.0051	.0032	2	1	1	1	1
Middelburg, C. P.	.0101	.0091	6	3	3	2	4
Mossel Bay	.0045	.0035	3	1	2	1	2
O. F. S. Goldfields	.0224	.0237	10	6	4	6	4
Oudtshoorn	.0111	.0082	2	3	-1	2	0
Pietermaritzburg	.0151	.0150	5	4	1	4	1
Port Elizabeth	.1094	.1056	40	28	12	27	13
Postmasburg	.0030	.0025	2	1	1	1	1
Potchefstroom	.0116	.0078	2	3	-1	2	0
Pretoria	.0679	.0741	25	17	8	19	6
Queenstown	.0112	.0092	7	3	4	2	5
Sasolburg	.0044	.0045	3	1	2	1	2
Somerset East	.0082	.0091	3	2	1	2	1
Stellenbosch	.0078	.0074	4	2	2	2	2
Uitenhage	.0338	.0244	11	9	2	6	5
Umzinto	.0020	.0020	2	1	1	1	1
Vanrhynsdorp	.0038	.0260	2	1	1	1	1
Vereeniging/v. d. B. Park	.0221	.0199	2	6	-4	5	-3
Willowmore	.0050	.0048	2	1	1	1	1
Wodehouse	.0020	.0020	2	1	1	1	1
TOTAL	1.0000	1.0000	255	255	+65, -65	255	+71, -71

(White) population size (Pp) and distance (D) from the Midlands town(s) concerned. Column III contains a similar schedule of probability coefficients, based on regional (White) income (Py) and distance. Column IV gives the actual number of Midlands migrants to each place of destination, obtained from the 1969 survey. These figures are compared in Column V to the number of migrants which each place was expected to have attracted according to the probability schedule in Column II, the difference between the observed and expected number of migrants (Column IV minus Column V) being shown in Column VI. Similarly, the expected number of migrants according to the probability schedule in Column III appears in Column VII, while Column VIII again shows the difference between observed and expected migrants (Column IV minus Column VII).

On the whole, the predictions based on the population/distance hypothesis yielded somewhat better results than those based on the income/distance hypothesis. The correlation of the Pp/D values (in Column II) and the observed number of migrants (in Column IV) gave a positive coefficient of 0.8252, compared to a positive coefficient of 0.7600 when the observed number of migrants was correlated with the Py/D values (in Column III). Also, the sum of the squared differences between observed and expected migrants in Column VI was less (748) than the corresponding figure obtained from Column VIII, namely, 1,522. (Mainly because of the large number of cases involving less than 5 migrants, it was not feasible to subject the data contained in Table 104 to more rigorous statistical analysis, such as the chi-square test.[160] Per capita income again proved to be an unsuitable measure of the attraction of the various places of destination, yielding a negative correlation coefficient of -0.4504, when related to the observed number of migrants. Small communities often showed a comparatively high per capita income index simply because they had been losing people, while the per capita income of larger places was again, at times, comparatively low because of the influx of migrants. Thus, it may again be concluded that the level of regional per capita income is in many cases the outcome of migration, and not its cause.

On the population/distance hypothesis, 27 places received more and 13 places less than the expected number of migrants from the Midlands towns, the mean distances travelled in the two cases being 391 and 623 kilometres, respectively. On the income/distance hypothesis, 31 places drew more and 10 places less than the expected number of migrants, the mean distances involved being 345 and 673 kilometres, respectively. Thus, in contrast with what the attraction/distance relationship for the 39 places which had each received only one migrant from the Midlands towns may have suggested, it appears from the data in Table 104 that Midlands out-migrants generally showed a greater aversion to the more distant places than their attraction (in terms of population and income) would have warranted. This "aversion" may also be interpreted as evidence of intervening opportunities between the places of origin and destination.

It is, however, difficult to formulate any general conclusions on the strength of these observations. For example: Pretoria, which drew a greater than expected number of Midlands migrants, is situated much farther (816 km) than most places which attracted less than the expected number of people. In this particular case it may well be possible that employment opportunity (in the civil service) had a greater power of attraction than income opportunity or population size. By contrast, East London. received less than the expected number of Midlands migrants, although the intervening distance (294 km) was well within the mean distance for the places which had received more than the expected number of migrants. The relatively close proximity and powerful attraction of Port Elizabeth may well have been responsible for this. Similarly, the Orange Free

State goldfields may have attracted more than the expected number of Midlands migrants at the cost of Bloemfontein and Kimberley.

In summary, it does appear that the variables of population size (or to a lesser extent income) and distance did give rise to migration streams, in accordance with the general expectations derived from gravity models. But any predictions based on these variables alone are bound to be liable to sizeable margins of error, partly because of the crude, aggregative nature of the variables themselves, and partly because of the several random factors which are evidently responsible for the decision to migrate.

IV SUMMARY AND CONCLUSIONS

When relating the findings of the 1969 Midlands sample survey to the migration theories outlined in Chapter VI, a number of points of interest emerge.

With regard to the factors which influence the decision to migrate, economic considerations appeared to have been paramount in the case of primary migrants (mostly males), while kinship reasons predominated for secondary migrants (mostly females). This conclusion confirms the broad validity of Ravenstein's 7th law of migration, Watts' findings for East London and King William's Town, as well those of similar studies conducted abroad.

The volume of migration between places of origin and destination did appear to have been positively influenced by the "mass" of the regions concerned (population, income), and at the same time inhibited by the distance between them. Although of a qualitative nature, these findings were thus broadly consonant with the first two of Ravenstein's laws and Zipf's P1P2/D hypothesis. The observed general "aversion" of the Midlands second generation to distance, relative to attraction, also lends some support to Stouffer's thesis of intervening opportunities.

Technical, economic and educational progress appeared to have increased mobility over time. Gross migration in South Africa has seemingly reached very considerable proportions, a phenomenon also being observed abroad.[161] These conclusions are again in broad agreement with Ravenstein's 6th law of migration.

On the basis of the Midlands survey, there was, however, little support for Ravenstein's 3rd law that each main stream of migration produces a compensating counterstream. The counterstream was somewhat more pronounced for East London and King William's Town, but the general impression gained rather agreed with Bogue's conclusion : "The regional pattern of net migration tends to remain constant for several decades, presumably reflecting the continued action of a given set of redistributive forces".[162]

With reference to the selective aspects of migration, there was ample evidence to show that rural areas had been losing people more rapidly than urban areas, in conformity with Ravenstein's 4th law. At present, most of the migration occurring within South Africa, however, appears to be of an inter-urban character, with the smaller towns losing population to metropolitan areas.

Although there appeared to be some rather limited evidence for Ravenstein's 5th law that females are more migratory than males over shorter distances, there were no really significant differences between male and female mobility in general.

This phenomenon has also emerged from similar overseas research projects.[163]

Selectivity by age was very pronounced in the Midlands context, the out-migrants from the region being, on average, more than 10 years younger than the regional in-migrants. Selectivity in terms of industrial, occupational and educational properites was also working against the Midlands region.

The present study therefore broadly endorses Lee's opinion that since the formulation of Ravenstein's laws of migration, "few additional generalisations have been advanced".[164] This does, however, not imply, that there exists a reliable or even adequate foundation for future migration estimates, especially in quantitative terms. Because migration itself is the outcome of unpredictable social and economic changes, observed migration patterns may provide hind-sight information about the past, but fail to predict the future. Any "laws" of migration must therefore be treated as conditional and qualitative in their nature. The general problem of the quantitative forecasting of migration in a changing environment is, moreover, made considerably more difficult in the present regional context, on account of the small number of observations on which such predictions would be based.

In terms of both the Classical and Keynesian models, with regard to migration in a changing economy the Midlands region should expect a continuation of the process of net out-migration, in the absence of policy intervention. According to the Classical view, "things must get worse before they can get better", that is, more migration would be needed to close (or narrow) the interregional income gap which presumably initiated the movement. In Keynesian terms again, both regional growth and decline are viewed as inherently cumulative processes which, if unchecked, would lead to a permanent state of prosperity and stagnation in the respective regions.

APPENDIX TO CHAPTER VII

Technical Aspects of the Midlands Sample Survey

The primary purpose of the sample survey was to gather direct information about the scope and nature of the migration of White persons, taking place to and from the urban areas of the Midlands region. Such information was to include the rate of population turnover, the relationship between net and gross migration, the type of places from which people came and to which they went, the distances travelled, the reasons for migration, and the basic properties of the migrants themselves.

Because of the constraints of finance, personnel and time, the survey was restricted to four deliberately selected sample towns, namely, Aberdeen and Graaff-Reinet from Subregion I, and Cradock and Steynsburg from Subregion II. This selection was deemed to represent a fair cross-section of the entire urban population of these two subregions, and, to a lesser extent, of the Midlands region as a whole.

In designing the questionnaire used in the survey, much assistance was received from Professor H. L. Watts, of the University of Natal, who had previously conducted similar surveys in King William's Town (1962) and East London (1964). A provisional questionnaire was tested during a pilot survey held in Murraysburg (Subregion I) and Somerset East (Subregion II) in July, 1968. This experience resulted in the compilation of the final questionnaire, which appears at the end of this appendix.

The population of the four towns surveyed was limited to the permanent local residents living in private households, thus excluding the residents of various institutions, such as schools, hospitals, hotels, etc. The sampling frame from which the individual households were selected, consisted of the municipal records of domestic water and electricity consumption.

The constraints which limited the number of towns to be included in the survey, were also instrumental in limiting the size of the sample itself. It was decided to aim at a 10 per cent sample in the two larger towns (Cradock, Graaff-Reinet) and a 20 per cent sample in the two smaller towns (Aberdeen, Steynsburg). In selecting the households, a process of simple random selection was followed. Each household was given an identification number, and the sample units drawn from a schedule of random numbers.[165] Selected households which could not be contacted after three visits, were replaced by substitute households, drawn at the same time and in the same manner as the rest of the sample.

The breakdown of the main statistics pertaining to the sample is given below:

Sample Town	Total no. of households	No. of households selected	No. of house-holds sub-stituted	Per cent of households selected	Weight (or raising factor)
Aberdeen	265	55	3	20.8	4.8
Cradock	1,191	121	1	10.2	9.8
Graaff-Reinet	1,250	143	14	11.4	8.7
Steynsburg	230	51	8	22.2	4.5

The entire field work was completed by 10 trained student interviewers, under the supervision of 2 staff members of Rhodes University, during the period 11-21 February 1969.

Apart from obtaining certain general information about all the members comprising the selected households, it was further decided to select one adult member from each household cluster for more intensive interviewing. This individual selection was motivated by reasons of economy, and also because multiple interviews within one household could lead to undesirable sampling situations.[166] The choice of the relevant adult individual (defined as a person aged 18 years and over) from the household cluster, was made on the basis of a table of selection devised by Kish, the purpose of which is to "translate a sample of the households into a sample of the adult population".[167]

The questionnaire was accordingly divided into two parts: Part I (pages 2-8) refers to the entire household as such and Part II (pages 9-18) to the objectively selected adult individual from the household cluster.

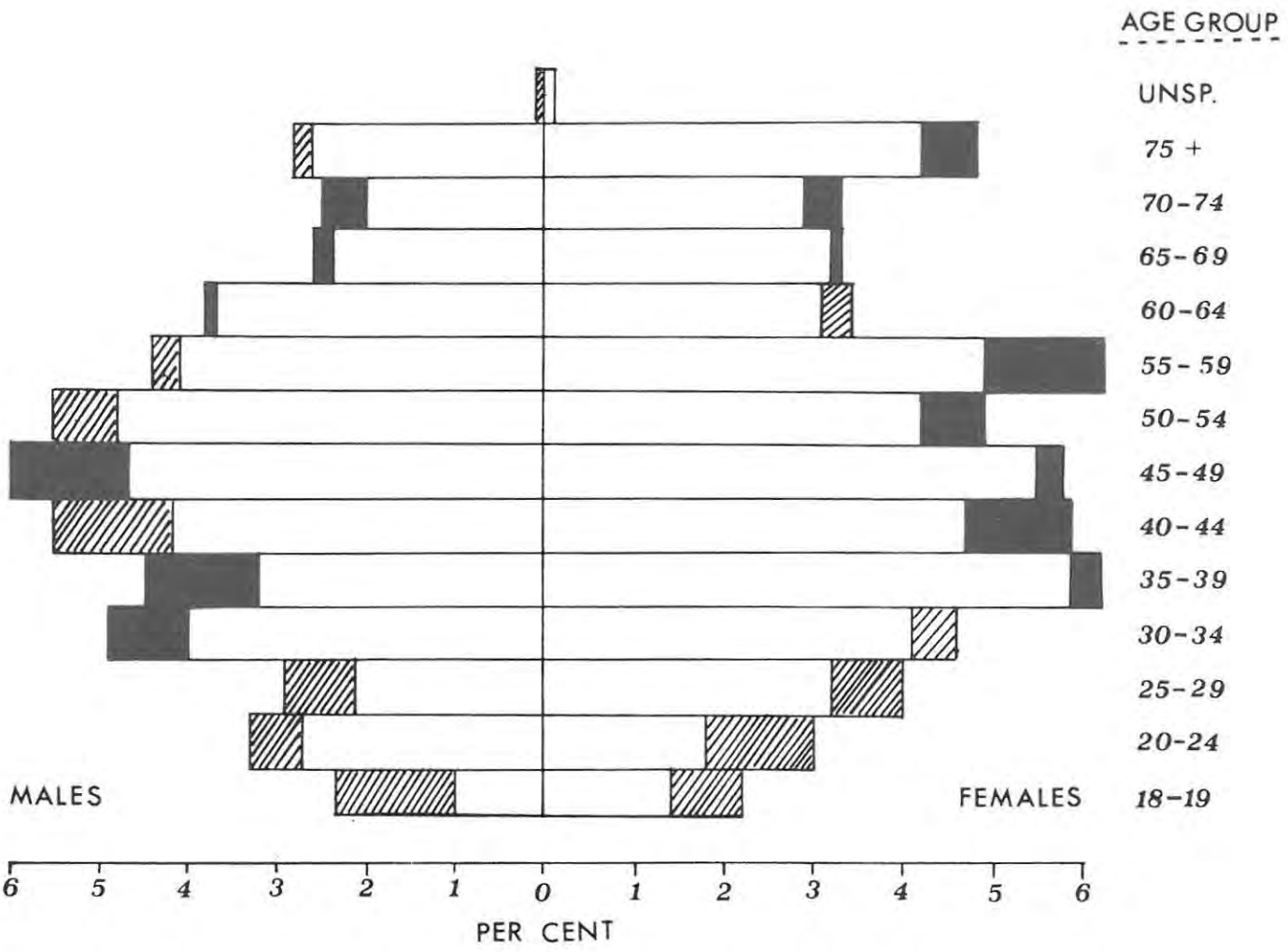
The extent to which the individuals selected (in Part II) were representative of all the (adult) individuals recorded (in Part I of the questionnaire), is indicated in Figure 44, according to the basic demographic properties of sex and age. (Black rectangles show overrepresentation of the adults in Part II vis-à-vis those in Part I, and striped rectangles the opposite).

It appears that male persons were somewhat underrepresented in the populatio derived from the individual selection in Part II, where they formed 45. 6 per cent, as against 47. 3 per cent of the adult household population obtained from Part I of the questionnaire. Although this difference is not of a serious order, the basic reason for it is vested in the practical difficulty of contacting male persons who were out at work, even after repeated calls at the home.[168] The age discrepancies, especially on the female side of the distribution, may be related to the relatively large proportion of one-person households, often consisting of widowed persons, which were encountered in the survey. On the whole, the procedure followed in selecting a representative adult within the household did appear to yield satisfactory results.

While the selection process followed was thus carefully related to the requirements of random sampling, the estimation process, or the calculation of sample statistics, is subject to some definite limitations, on account of the size of the sample itself. Bogue has, for example, estimated that in "mini-demographic" studies, such as the present one, a sample of some 35-50 per cent of the total population would be necessary in order to obtain the required level of statistical precision.[169] Moreover, as the questionnaire employed in the Midlands survey contained a comparatively large number of different items, some of which yielded a rather small number of observations, it is possible that nothing less than a complete (census) count would have produced information of sufficient statistical reliability in some cases.

In view of these difficulties, which were largely similar to those encountered by Watts in the East London survey,[170] no attempts have been made here to measur the size of standard errors. The limitations of the estimations obtained from the present sample survey, should thus be viewed against the following background: "Commonly, however, instead of specifying precision, the researcher must work from a reasonable allowed expenditure, and adjust accordingly the aims and scope of the survey. This occurs in the design of surveys with many objectives, none of which is of predominant importance".[171]

Fig.44: Distribution of adult ML sample



The organising and summarising of the results of the present survey should, therefore, be seen as statistical description, rather than as statistical inference, in the sense of possessing predictive properties of high accuracy. Meaningful description should, of course, lend itself to useful analysis from which certain inferences may be drawn, albeit of a qualitative rather than of a quantitative nature.[172] The (mainly) descriptive findings of the present survey are also largely supported by prior knowledge about the factual circumstances pertaining to the situation in the Midlands region, as well as the information yielded by similar surveys in the Eastern Cape Province.

QUESTIONNAIRE

(1)

RHODES UNIVERSITY

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

STRICTLY CONFIDENTIAL

CAPE MIDLANDS/KAROO DEMOGRAPHIC SURVEY 1969

Schedule No. ☐

Complete ☐

Incomplete ☐

Non-response ☐

DATE AND TIME OF VISITS:

Date	Time	Notes	Signature of Fieldworker

Reasons for final non-response (if any): . . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

Schedule checked by: . . . . . Date: . . . . . .

PART I : GENERAL HOUSEHOLD DATA

A : DWELLING

A 1. Type of dwelling occupied:

House	Flat	Part of House	Room
Maisonette	Outbuilding	Hotel	Boarding house

Other (Specify):	

2. Number of rooms occupied by household:

1	2	3	4	5	6+

3. Dwelling is :

Owned	Rented	Free

Other (Specify):	

4. Number of persons residing in this dwelling (exclude visitors and servants; include scholars and students boarding away or on holiday):

5. Number of households residing in this dwelling:

6. Rating of dwelling:

1	2	3	4	5

B: COMPOSITION OF HOUSEHOLD (Include scholars and students boarding away or on holiday. Use a separate page for each individual.):

(i) BASIC FAMILY (i.e. biological family of which head is a member)

(a) HEAD

B(i)(a)

1. Household number: ☐

2. Sex: M | F

3. Age on last birthday: ☐

4. Home language: A | E | A/E | O

5. Marital status: NM | M | W | D | S

6. Highest education: School: ☐ Other: .....

7. Present occupation (indicate by (U) if unemployed): .....
.....

8. If retired, former (last) occupation: .....

9. Number of years in present occupation (or retired): ☐

10. Work status: ER | EE | O

11. Name of present employer (last employer if retired or unemployed): .....
.....

12. Industry: .....

13. Income (annual): ☐

14. Birth place: F | T

15. Name of district or town where born: .....

16. Number of years lived in this town: ☐

17. Number of years lived in this magisterial district: ☐

(i) BASIC FAMILY (continued)

(b) SPOUSE

B(i)(b)

0. Relationship to head: .....

1. Household number: [ ]

2. Sex: [M | F]

3. Age on last birthday [ ]

4. Home language: [A | E | A/E | O]

5. Marital status: [NM | M | W | D | S]

6. Highest education: School: [ ] Other .....

7. Present occupation (indicate by (U) if unemployed): .....

.....

8. If retired, former (last) occupation: .....

9. Number of years in present occupation (or retired): [ ]

10. Work status: [ER | EE | O]

11. Name of present employer (last employer if retired or unemployed): .....

.....

12. Industry: .....

13. Income (annual): [ ]

14. Birthplace: [F | T]

15. Name of district or town where born: .....

16. Number of years lived in this town: [ ]

17. Number of years lived in this magisterial district: [ ]

(5)

(i) BASIC FAMILY (Continued)

(c) CHILDREN WHO ARE NO LONGER AT SCHOOL

B(i)(c)

0. Relationship to head: .....
1. Household number: [ ]
2. Sex: [M] [F]
3. Age on last birthday: [ ]
4. Home Language: [A] [E] [A/E] [O]
5. Marital Status: [N/M] [M] [W] [D] [S]
6. Highest education: School: [ ] Other: .....

   Is the person still studying ? [Yes] [No]
7. Present occupation (indicate by (U) if unemployed) .....
   .....
8. If retired, former (last) occupation: .....
9. Number of years in present occupation (or retired): [ ]
10. Work status [ER] [EE] [O]
11. Name of present employer (last employer, if retired or unemployed): .....
12. Industry: .....
13. Income (annual): [ ]
14. Birth place: [F] [T]
15. Name of district or town where born: .....
16. Number of years lived in this town: [ ]
17. Number of years lived in this magisterial district: [ ]

IF TEMPORARILY ABSENT: (excluding normal holiday or visit)

18. Reason for absence .....
19. Where residing at present .....
20. How long has he/she been absent (years) ? [ ]
21. How long do you expect him/her still to be absent to complete present training etc., (years) ? [ ]
    After present training etc., has been completed, do you expect he/she will return to:
22. this town ? [Yes] [No] [D.K.]
23. this magisterial district ? [Yes] [No] [D.K.]
24. Reason why you expect (or do not expect) him/her to return: .....

(6)

(i) BASIC FAMILY (continued)

(d) CHILDREN WHO HAVE NOT YET COMPLETED SCHOOL

B(i)(d) 0. Relationship to head: .....

1. Household number: [ ]

2. Sex: [M] [F]

3. Age on last birthday: [ ]

4. Home language: [A] [E] [A/E] [O]

5. Present level of education: [ ]

6. Where at school: .....

7. Birth Place: [F] [T]

8. Name of district or town where born: .....

IF TEMPORARILY ABSENT (excluding normal holiday or visit)

9. Reason for absence: .....

10. Where residing at present: .....

11. How long has he/she been absent (years) ? [ ]

12. How long do you expect him/her still to be absent to complete present schooling etc., (years) ? [ ]

After present schooling etc., has been completed, do you expect he/she will return to:

13. this town ? [Yes] [No] [D. K.]

14. this magisterial district ? [Yes] [No] [D. K.]

15. Reason why you expect (or do not expect) him/her to return .....
.....

(7)

(ii) RELATIVES AGGREGATED ON TO BASIC FAMILY

B(ii)

o. Relationship to head: .....

1. Household number ☐

2. Sex: M | F

3. Age on last birthday: ☐

4. Home language: A | E | A/E | O

5. Marital Status: NM | M | W | D | S

6. Highest education: School: ☐ Other: .....

Is the person still studying ? Yes | No

7. Present occupation (indicate by (U) if unemployed): .....

.....

8. If retired, former (last) occupation: .....

9. Number of years in present occupation (or retired): ☐

10. Work status: ER | EE | O

11. Name of present employer (last employer if retired or unemployed): .....

12. Industry: .....

13. Income (annual): ☐

14. Birth place: F | T

15. Name of district or town where born: .....

16. Number of years lived in this town: ☐

17. Number of years lived in this magisterial district: ☐

IF TEMPORARILY ABSENT (excluding normal holiday or visit)

18. Reason for absence: .....

19. Where residing at present: .....

20. How long has he/she been absent (years)? ☐

21. How long do you expect him/her still to be absent to complete present training etc., (years) ? ☐

After present training etc., has been completed, do you expect he/she will return to :

22. this town ? Yes | No | D.K.

23. this magisterial district? Yes | No | D.K.

24. Reason why you expect (or do not expect) him/her to return: .....

.....

(iii) NON-RELATIVES

B(iii)

0. Relationship to head : .....

1. Household number [ ]

2. Sex: [M] [F]

3. Age on last birthday: [ ]

4. Home language: [A] [E] [A/E] [O]

5. Marital status: [NM] [M] [W] [D] [S]

6. Highest education: School [ ] Other: .....

Is the person still studying ? [Yes] [No]

7. Present occupation (indicate by (U) if unemployed): .....

.....

8. If retired, former (last) occupation: .....

9. Number of years in present occupation (or retired): [ ]

10. Work status: [ER] [EE] [O]

11. Name of present employer (last employer if retired or unemployed : .....

.....

12. Industry: .....

13. Income (annual): [ ]

14. Birth place: [F] [T]

15. Name of district or town where born: .....

16. Number of years lived in this town: [ ]

17. Number of years lived in this magisterial district: [ ]

IF TEMPORARILY ABSENT (excluding normal holiday or visit)

18. Reason for absence: .....

19. Where residing at present: .....

20. How long has he/she been absent (years)? [ ]

21. How long do you expect him/her still to be absent to complete present training etc., (years) ? [ ]

After present training etc., has been completed, do you expect he/she will return to:

22. this town ? [Yes] [No] [D.K.]

23. this magisterial district ? [Yes] [No] [D.K.]

24. Reason why you expect (or do not expect) him/her to return .....

.....

(9)

PART II : INDIVIDUAL ADULT CHOSEN FOR INTENSIVE INTERVIEW

C : ATTITUDES:

C 1. Household number of adult chosen: [ ]

2. Do you like living in this town ?

Like it	Partially Like it	Dislike it	Don't know

3. Reasons for this attitude: .....

.....

.....

4. Would you like to live in this town all your life ?

Yes	No	D.K.

5. Why ? .....

.....

6. Is there any other town or rural area where you would rather live ?

Yes	No	D.K.

If yes, give the name of the place: .....

7. Why ? .....

.....

C.8 Do you consider it necessary for young people who are starting to work to leave this town if they want to find a good job ?

Necessary	Not necessary but desirable	Unnecessary	D.K.

9. Reasons for this view : .....

.....

.....

.....

10. Would you say that at present this town is economically

Prosperous	Stagnant	Declining	D.K.

11. Reasons: .....

.....

.....

.....

12. Have business conditions in the town improved or deteriorated since you first knew it ?

Improved	No Change	Deteriorated	D.K.

13. Reasons : .....

.....

.....

14. In what period, i.e. years, did you first come to know this town ? .....

.....

C 15. How will the Orange River Scheme affect future business conditions in this town ?

Favourable	Scarcely	Adversely	D.K.

16. What are your reasons for thinking this ? .....

.....

17. Which of the following forms of economic activity are likely to contribute most towards the future progress of business in this town ? (Rate in order of importance) :

Farming	
Manufacturing	
Commerce	
Government Sector	
Other:	
Other:	

18. Reasons: .....

.....

.....

.....

19. Has the town much to offer as a site for manufacturing industry ?

Yes	No	D.K.

20. Rate your opinion (0= nothing to offer: 10 = very much to offer) :

0	1	2	3	4	5	6	7	8	9	10	D.K.

C 21. Your reasons for this view: .....

.....

.....

22. Do you think that the White population of this town will in future

grow rapidly	grow slowly	become stationary	decline	D.K.

23. Your reasons for this conclusion: .....

.....

.....

24. Would you say that the town provides adequate recreational facilities for the teenagers who live here ?

Yes	No	D.K.

25. Would you say that the town has adequate recreational and cultural facilities for persons of your own age group ?

Yes	No	D.K.

26. Do you plan to

Stay on in this town permanently	leave soon	leave eventually	D.K.

Why ? .....

.....

.....

27. To what extent is your decision influenced by economic considerations?

Largely	partially	scarcely	D.K.

D: HOW THE SUBJECT CAME TO LIVE IN THIS TOWN

Detailed migratory history: start with present and work back to birthplace.

(Include only permanent change of address).

D. 1

Town or district in which subject lived. (If farm, put (F) next to the name of district)	Length of stay	Years of stay	Occupation(s) held during stay	Reasons for coming to town/district (Indicate if moved with parents by writing (P) in column below).	No. of changes of address within town/district
(1)	(2)	(3)	(4)	(5)	(6)
This town :					

Put an (X) in column (I) if move included the subjects' wife/husband and (XY) if it included children as well as wife/husband; (Y) if it included children only.

D 2. Individual informant: Birthplaces:

	Farm	Town	Name of District/Town
His/her birthplace			
His/her father's birthplace			
His/her mother's birthplace			
His/her father's father's birthplace			

Residence in this magisterial district of individuals own relatives (not in-laws):

3. Did his/her father ever live in this magisterial district ? | Yes | No | D.K. |
No. of years: [ ]

4. Did his/her mother ever live in this magisterial district ? | Yes | No | D.K. |
No. of years: [ ]

5. Did any other relative ever live in this magisterial district?

| Yes | No | D.K. |

E: MIGRATION OF INDIVIDUAL INFORMANT'S CHILDREN

E 1. No. of children (own and adopted) of subject and spouse:

M	
F	

2. No. of these children aged less than 18 years:

M	
F	

3. No. of these children aged 18+ years:

M	
F	

CHILDREN AGED LESS THAN 18 YEARS:

4. No. living with the head:

M	
F	

5. No. living in this town away from the head:

M	
F	

6. Age upon leaving parental home:

M						NA
F						

7. No. living away from this town but within the magisterial district:

M	
F	

8. Age upon leaving parental home:

M						NA
F						

9. No. living away from this magisterial district:

M	
F	

10. Age upon leaving parental home:

M						NA
F						

(16)

CHILDREN AGED 18 + YEARS :

11. No. living with the head:

M	
F	

12. No. living in this town away from the head:

M	
F	

13. No. living away from this town, but within the magisterial district:

M	
F	

14. No. living away from this magisterial district:

M	
F	

(17)

DETAILS OF ALL CHILDREN AGED 18 + WHO HAVE LEFT PARENTAL HOME, WHETHER OR NOT THEY HAVE LEFT THIS TOWN, OR HAVE EVER LIVED HERE. (Use a separate page for each individual. N.B. Children studying temporarily away from home are NOT to be included).

E 15. Sex: [M | F]

16. Age on last birthday [ ]

17. Home language: [A | E | A/E | O]

18. Marital Status: [NM | M | W | D | S]

19. Highest education: [ ] Other : .....

20. Where did he/she go to school ? .....

21. Where did he/she receive further training, if any ? .....

.....

22. Presently residing at: [F | T]

23. Name of district or town: .....

Did he/she ever live in:

24. This town ? [Yes | No]

25. This magisterial district ? [Yes | No]

26. No. of moves after having permanently left the parental home: [ ]

27. Present occupation: .....

28. Work status: [ER | EE | O]

29. Name of present employer: .....

30. Industry: .....

31. Age when he/she permanently left the parental home: [ ]

32. What was <u>your</u> permanent address when this occurred ? .....

. .....

33. Reason given why child has left the parental home: .....

.....

(18)

F: FAMILY EVENTS (Record date of occurrence as accurately as possible):

F 1. Separation of parents : .....

2. Divorce of parents: .....

3. Death of Father: .....

4. Death of Mother: .....

	Informant's 1st Marriage	Informant's 2nd Marriage	Informant's 3rd Marriage
5. Marriage ceremony:			
6. Separation:			
7. Divorce:			
8. Death of Spouse:			
9. Birth of children:			
First:			
Second:			
Third:			
Fourth:			
Fifth:			
Sixth:			

CHAPTER VIII

FUTURE PROSPECTS

1. Population Projection

The difficulties which attend the estimation of future population numbers for a country as a whole, are greatly magnified on the regional level. This is partly the case because of the greater degree of uncertainty which inevitably surrounds smaller numbers, but also because national estimates can usually ignore the influence of temporary and institutional local residents, and especially that of interregional migration. Furthermore, the availability and general quality of national demographic data normally exceed those of regional statistics. However, it should be borne in mind that "any estimate ... relating to the future, contains an element of uncertainty which cannot be overcome, no matter how abundant the statistical information on which it is based.[173]

Largely depending on the circumstances in which it is undertaken, a future population estimate may be classified either as a "projection" or as a "forecast". These concepts are defined by the United Nations as follows: "Population projections are calculations which show the future development of a population when certain assumptions are made about the future course of fertility, mortality and migration. They are in general purely formal calculations, developing the implications of the assumptions that are made. A population forecast is a projection in which the assumptions are considered to yield a realistic picture of the probable future development of a population. Generally speaking, these are short-term forecasts, as the margin of error to which they are subject increases considerably with the space of the forecast."[174]

As the necessary assumptions in the present context are both numerous and uncertain, the estimates in this chapter should therefore be regarded as population projections rather than forecasts. That is, they should not be treated as the most probable future population numbers, but rather as estimates which follow from a specific set of assumptions. Should such assumptions turn out to be unrealistic in the light of available evidence, the projections should then also be revised accordingly. The usefulness of such projections lies mainly in considering the general implications of the results which they yield. This may in turn be helpful in "evaluating the merits of various proposals relating to population policy".[175]

Projections may, in principle, amount to no more than estimates of total population size, or they may also be employed to provide information about a population according to certain fundamental characteristics, such as its expected sex and age composition. Invariably, less basic data are necessary to make projections of the former than the latter kind.

(a) Total regional population projection

Various methods exist for the projection of regional population totals; for example, extrapolation of certain trends based on past observation, or correlation of the regional population with the size of some greater (expected) population magnitude, such as that of the entire country.[176]

In the latter case, also known as the "ratio method", the smaller a given regional population in relation to the national one, the greater is the margin of error to which the projection is likely to be subject. Fitting the formula on page 172 of Chapter VI to past Midlands and South African White population data, thus

produced regional population estimates which exceeded and fell short of the observed figures by as much as 8 and 12 per cent, respectively. The main reason for these discrepancies was vested in the irregular rates of migration during the different intercensal periods.

Consequently, it may be advisable to use some very simplified assumptions when projecting the population of a small region.[177] It was therefore decided, in the present case, to project the White, Coloured and Bantu populations of the Midlands on the following two assumptions, namely, that these respective population groups would continue to change in size until the year 2000 according to their observed (a) long term (1904-70) and (b) medium term (1946-70) geometric growth rates. (See Chapter V, Table 75.) The population totals of the Midlands Whites, Coloureds and Bantu, as projected from 1970 for the years 1880, 1890 and 2000 in Table 105, were thus based on the following alternative assumed sets of average annual rates of change:

		Whites	Coloureds	Bantu
(a)	Long term rates	-0.47%	+1.06%	+1.17%
(b)	Medium term rates	-0.64%	+1.32%	+1.38%

TABLE 105: PROJECTION OF MIDLANDS POPULATION TOTALS

Race groups*		1970	1980	1990	2000
(a) Long term rates					
Whites:	Number	54,430	51,940	49,560	47,290
	Per cent	12.9	11.2	9.7	8.4
Coloureds:	Number	87,730	97,470	108,290	120,310
	Per cent	20.8	21.1	21.1	21.4
Bantu:	Number	278,920	313,230	351,760	395,030
	Per cent	66.2	67.7	69.0	70.2
Total:	Number	421,080	462,640	509,610	562,630
	Per cent	100.0	100.0	100.0	100.0
(b) Medium term rates					
Whites:	Number	54,430	51,060	47,900	44,940
	Per cent	12.9	10.8	9.1	7.5
Coloureds:	Number	87,730	100,010	114,010	129,970
	Per cent	20.8	21.2	21.6	21.8
Bantu:	Number	278,920	319,920	366,950	420,890
	Per cent	66.2	67.9	69.3	70.6
Total:	Number	421,080	470,990	528,860	595,800
	Per cent	100.0	100.0	100.0	100.0

* Asians excluded

Fig.45 a : ML - PROJECTED POPULATION

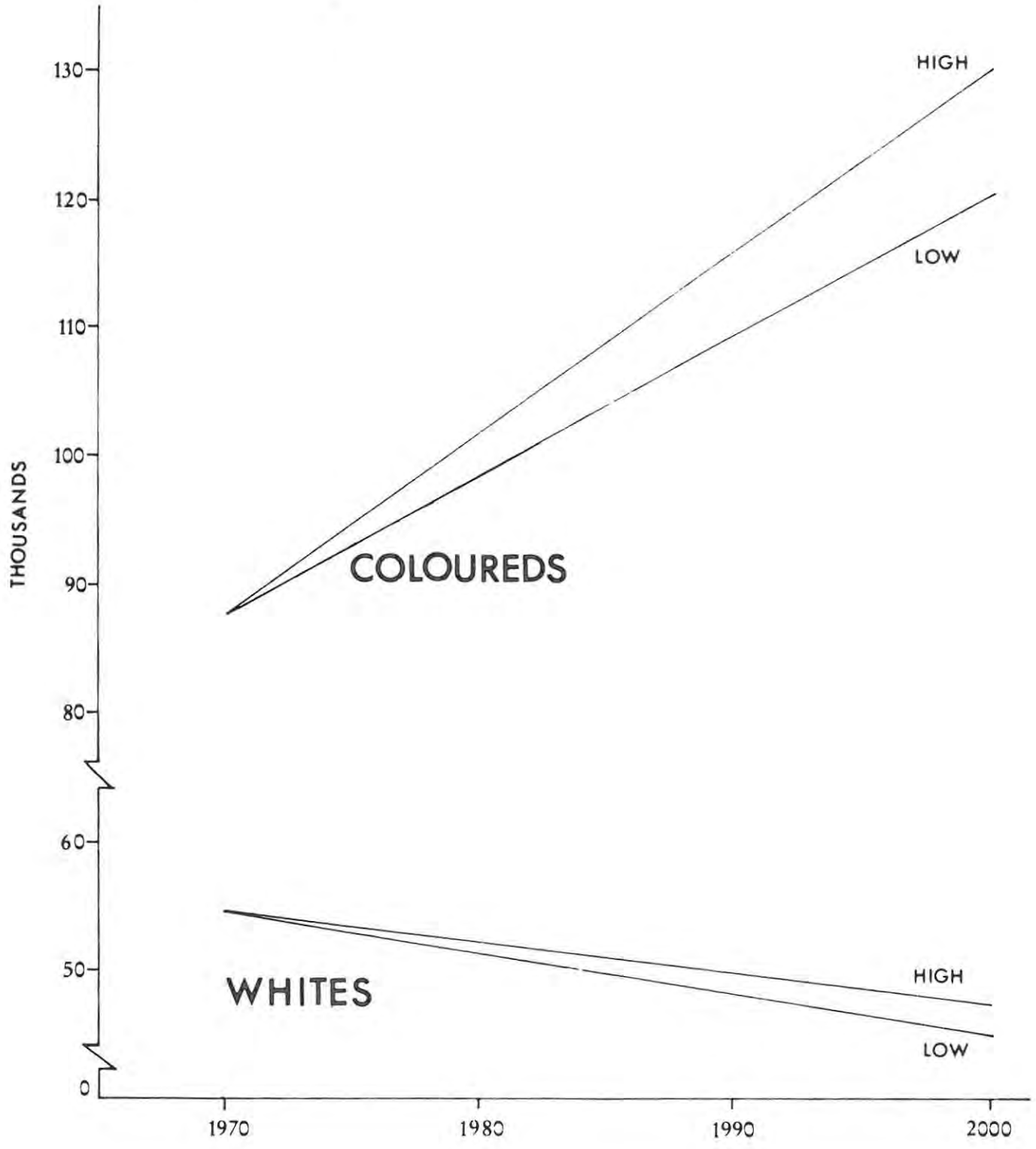
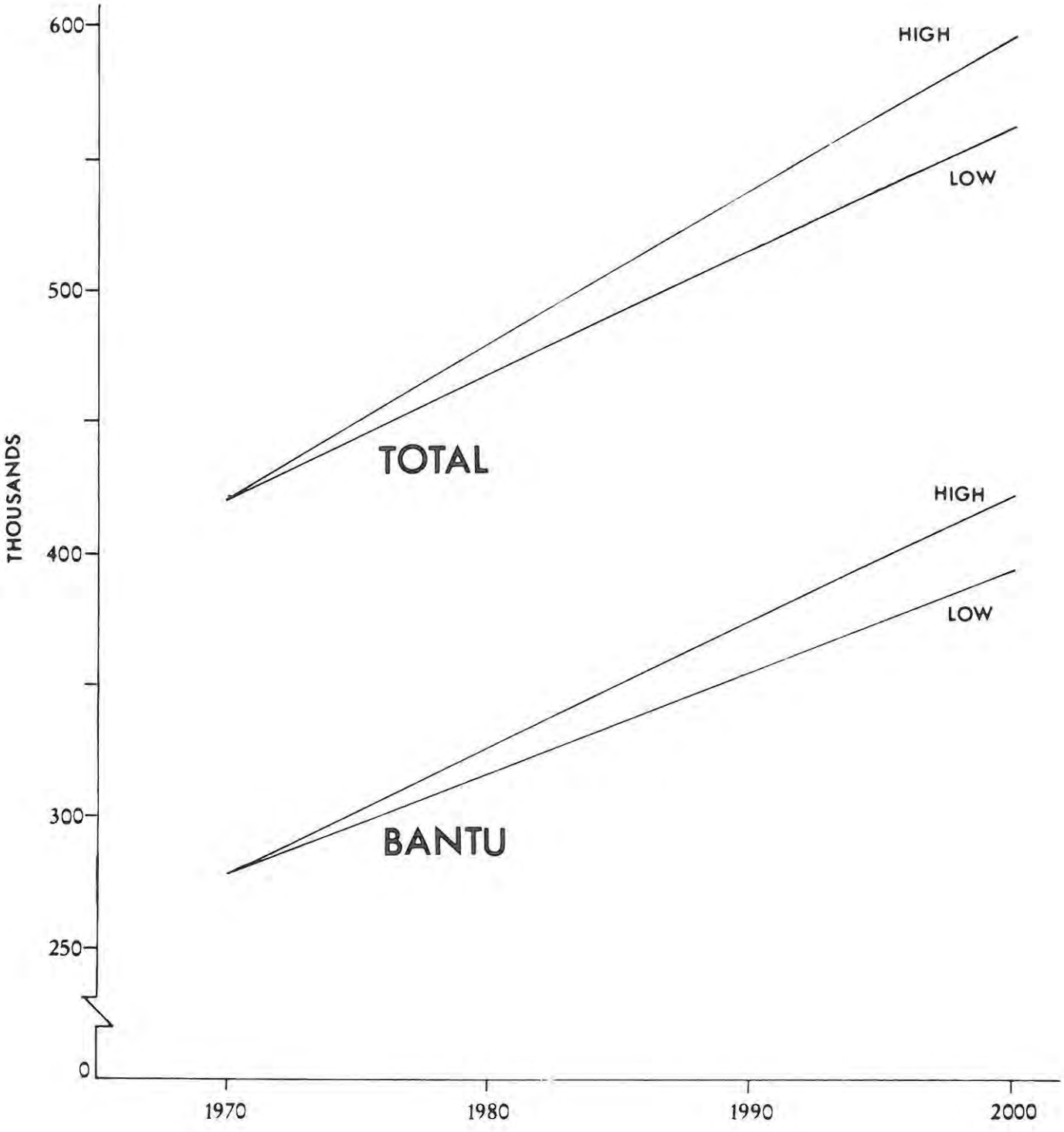


Fig.45b: ML-PROJECTED POPULATION



The initial (1970) and terminal (2000) population totals are also plotted in Figure 45 (a) for Whites and Coloureds and in Figure 45 (b) for Bantu and the total Midlands population (excluding Asians).

In the case of the White population the application of the (negative) long term rate could be said to yield a "high" and that of the (also negative) medium term rate a "low" future estimate, this order of things being reversed for the Coloured and Bantu population groups.

Projection based on the long term rates (assumption (a)) yielded a total population of some 562,630 persons for the Midlands region in 2000, as compared 595,800 persons when the medium term rates (assumption (b)) were used. According to assumption (a), the percentage share of the Whites in the total population was expected to fall from 12.9 in 1970 to 8.4 in 2000, assumption (b) giving a figure of 7.5 for the latter date. On either assumption, there were no great intertemporal changes in the relative Coloured population share, which remained in the vicinity of some 21-22 per cent. On the basis of assumption (a) the Bantu population share rose from 66.2 per cent in 1970 to 70.2 per cent in 2000, as compared to 70.6 per cent on assumption (b).

Consequently, if past trends of regional population change may be expected to continue until the end of the twentieth century, the Midlands region should experience a declining White, rising Bantu and approximately constant Coloured population share.

(b) Regional population projection by components

If information is also desired about the expected future sex and age composition of a population, projection is undertaken by population components or the "cohort survival method".[178]

In order to obtain satisfactory regional projection results by means of this method, the following procedure should be adopted in the "ideal" case, that is, when all the desired data are available in a reliable form.

(i) The identification and elimination (by sex and age) of any purely temporary residents from the total regional population, before projection is commenced. (See for example: Appendix to Chapter I, pages 37-39; and Chapter V, page 159.)

(ii) The identification (by sex and age) of all "revolving" institutional population components, which should be subtracted from the figures about to be projected, and again added to the final projection, after making allowance for the growth (or decline) of such institutions during the projection period.

(iii) The subtraction of expected (gross) out-migrants from and the addition of expected (gross) in-migrants to their appropriate sex-age groups.

(iv) The application of relevant sex/age-specific survival factors to project the population, usually by quinquennial cohorts and hence over successive five-year periods, preferably obtained from regional life tables.

(v) The calculation of the number of (surviving) births during the projection period, by means of a set of regional age-specific fertility rates and appropriate survival factors. Masculinity at birth should, of course, also be known.

In the present study, the basic data outlined above are simply not available in such "ideal" form, and hence numerous assumptions are necessary in order to project the regional population by means of the cohort survival method. Consequently, a certain element of subjective judgement is unavoidably present in projections of this nature.[179]

Disaggregating the total population into relatively small components considerably increases the degree of uncertainty surrounding the projection as a whole. As errors also increase with the length of the projection period, the Midlands White and Coloured population groups were projected, according to this method, only up to 1980 - and not 2000. This did, indeed, effectively involve a 20-year projection period, seeing that the sex and age composition of the regional population was not yet known for 1970, and hence the data for 1960 had to be used as the projection base.

(1) Whites:

Unlike 1951 and 1970, there was no clear evidence of the presence of purely temporary residents in any significant number within the Midlands region at the time of the 1960 Census.

The region's institutional population component is known to be considerable, consisting mainly of pupils and students at school, college and university. Direct enquiries made in June, 1971, showed that a minimum of some 15,700 persons fell into this category, that is, almost one-third of the region's entire White population. Of the above number, about 7,000 persons were classified as "boarders", or persons living away from home. It could, however, not be established how many of them had their homes outside the Midlands region as such. Some 56 and 44 per cent of the total number of students and pupils were males and females, respectively. Although age distribution could not be determined, it would appear that the age group 15-19 years features especially prominently among those institutional persons who do not normally reside in the Midlands region.

Past rates of gross in- and out-migration are not known, but the average annual rate of regional net out-migration had been previously estimated from available data. (See Chapter V, Table 79.) There appeared to be some conflicting evidence concerning the sex-composition of the body of regional net out-migrants, although, on the whole, sex-selectivity did not seem very pronounced. It was ultimately decided to accept 52 and 48 per cent as reasonable approximations of the respective male and female shares in the configuration of residual out-migrants. Their age distribution was assumed to be that which apparently applied to the two respective sexes during the period 1951-60. (See Chapter III, Table 36.)

Although regional life tables are not available, it did appear previously that national life table data should also closely approximate mortality conditions in the Midlands. (See Chapter III, page 76.) Age-specific fertility rates in the Midlands appeared somewhat lower than in South Africa as a whole (See Chapter III, page 80), and because of the uncertainties involved it was decided simply to use the crude birth rate to estimate the number of births during the projection period, assuming masculinity at birth to be 51 per cent. National survival factors were also used to calculate infant mortality.

Making allowance for 950 net out-migrants per annum, the Midlands population enumerated on 6 September, 1960, was accordingly projected via 1965 to 1970,

by means of Sadie's survival factors for the national population. The resulting projection, pro-rated to the census date on 6 May, 1970, yielded a total configuration of 54, 160 persons, which fell short of the actual census enumeration (54, 430 persons) by only some 0. 5 per cent. After some minor adjustments, the 1970 configuration was then projected (via 1975) to 1980, on the following alternative assumptions:

(a) that net out-migration during the projection period would take place at the comparatively moderate rate of 1. 0 per cent per year, and

(b) that it would continue at the comparatively high rate of 1. 7 per cent, which had been previously estimated for 1960-70. On both assumptions, the regional crude birth rate, which had apparently been some 18. 4 per thousand during 1960-70 (See Chapter V, Table 81) was assumed as 17. 5 for 1970-75 and 16. 5 for 1975-80.

Assumption (a) resulted in the comparatively "high" estimate of 51, 550 persons and assumption (b) in the comparatively "low" estimate of 47, 980 persons for 1980. The distribution of these configurations is shown in Table 106, and also compared to the observed sex-age composition of the Midlands population at the time of the 1960 Census in Figures 46 and 47.

TABLE 106 : ESTIMATED SEX-AGE DISTRIBUTION OF MIDLANDS WHITE POPULATION (PER CENT)

Age Group	1970		1980-assumption (a)		1980-assumption (b)	
	Males	Females	Males	Females	Males	Females
0- 4	5. 2	5. 0	4. 8	4. 7	4. 6	4. 5
5- 9	5. 0	4. 9	4. 7	4. 6	5. 2	5. 2
10-14	5. 3	5. 1	5. 3	4. 8	5. 3	5. 2
15-19	5. 8	4. 9	6. 1	5. 6	7. 0	6. 3
20-24	4. 5	4. 0	5. 2	4. 5	5. 8	5. 3
25-29	2. 9	2. 9	3. 0	3. 3	2. 6	2. 1
30-34	2. 2	2. 3	2. 7	2. 9	1. 7	2. 1
35-39	2. 2	2. 4	2. 5	2. 6	2. 0	2. 2
40-44	2. 4	2. 5	2. 0	2. 1	1. 9	2. 0
45-49	2. 3	2. 6	1. 9	2. 2	1. 8	2. 2
50-54	2. 2	2. 5	2. 1	2. 3	2. 1	2. 3
55-59	2. 2	2. 7	1. 9	2. 4	1. 9	2. 4
60-64	2. 1	2. 5	1. 8	2. 2	1. 7	2. 2
65-69	1. 6	2. 0	1. 6	2. 3	1. 6	2. 4
70-75	1. 2	1. 9	1. 4	2. 0	1. 4	2. 1
75+	1. 7	3. 0	1. 5	3. 0	1. 6	3. 3
Total	48. 8	51. 2	48. 5	51. 5	48. 2	51. 8
Persons (both sexes)	54, 430		51, 550		47, 980	

FIG.46: ML WHITES – CENSUS and PROJECTION ('high')

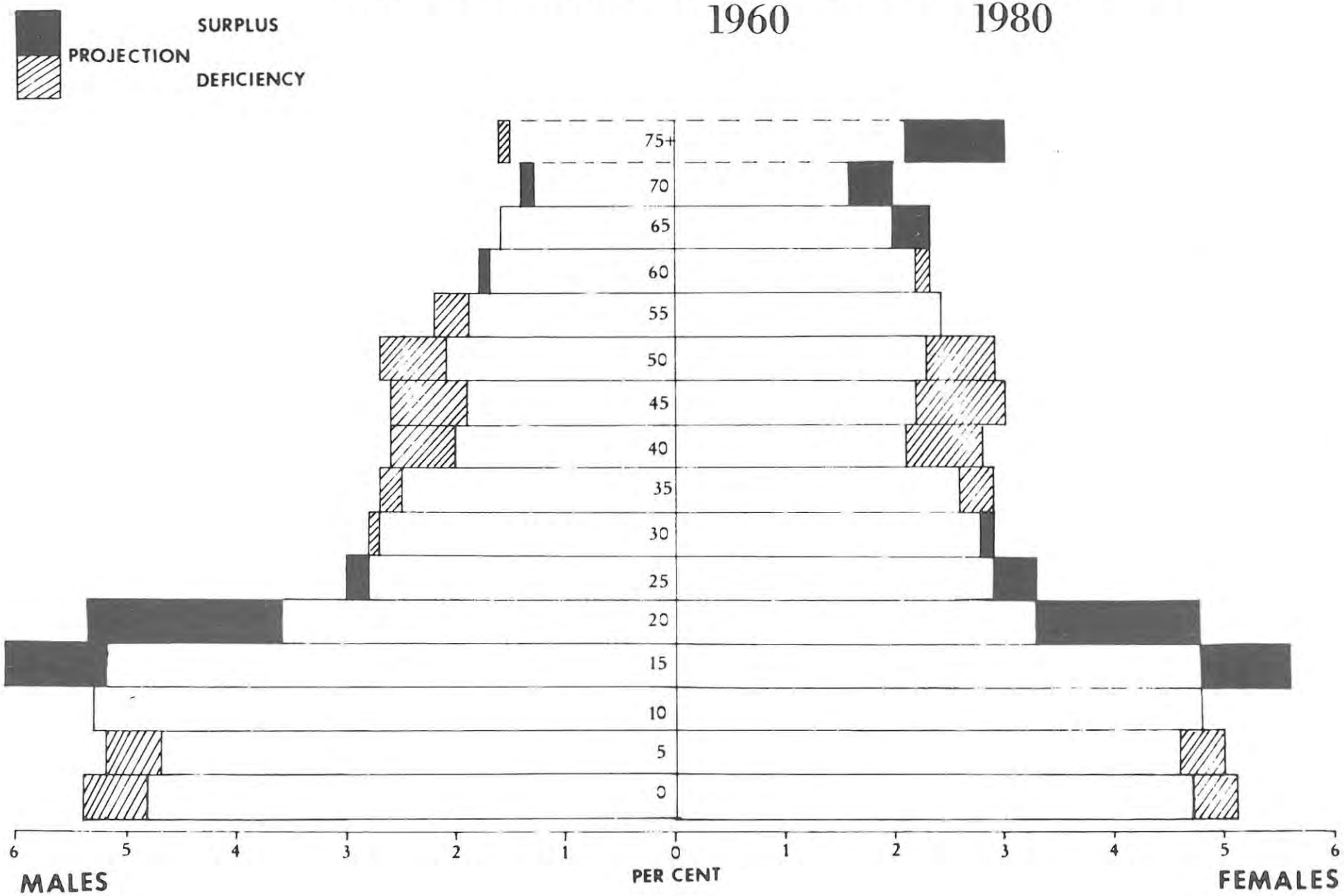
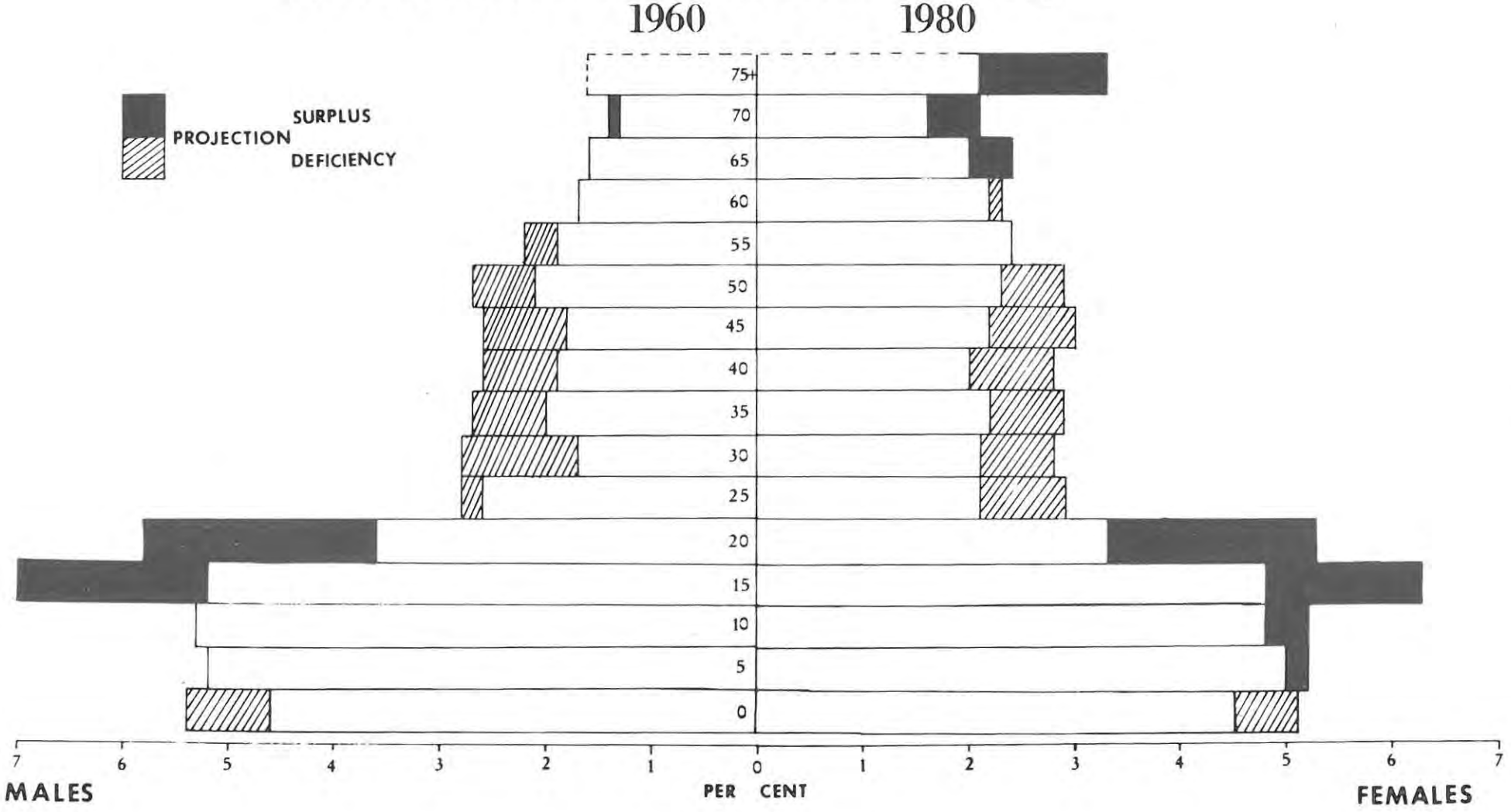


FIG.47: ML WHITES – CENSUS and PROJECTION ('low')



The projection suggested an expected fall in the median age of the Midlands White population from 26.5 years in 1960 (See Chapter II, Table 15) to 24.6 years in 1970. For 1980, assumption (a) and (b) yielded the median age values of 24.2 and 22.5 years, respectively.

Seen in terms of median age alone, increased net out-migration would thus appear to promote demographic juvenescence, as it serves to raise the relative importance and influence of the youthful institutional population component. A scrutiny of Figures 46 and 47, however, shows this suggested juvenescene to be of a somewhat questionable nature. Although on both assumptions the population of studying ages was expected to feature relatively more prominently in 1980 than in 1960, there was some further expected intertemporal narrowing at the base of the pyramid, coupled with some further overall expansion of the higher age groups. The latter may indeed have been underestimated for 1980, as the projection made no allowance for the net in-migration of aged persons into the region. Correspondingly, the estimated labour force for 1980 was relatively deficient vis-à-vis that observed for 1960. These impressions were, of course, more pronounced in the case of the "low" population estimate, obtained on the basis of the comparatively high average annual rate of net out-migration of 1.7 per cent (assumption (b)).

In general, the projected figures do suggest a significant increase in the intertemporal burden of dependency on the regional population of working ages. The question was raised previously as to whether it was appropriate, in the present context, to include the age group 15-19 years in the traditional bracket representing persons of working ages, namely, 15-64 years. (See Chapter II, page 54 and Chapter III,pages 90-91.) Direct observation appears to bear out that persons aged 15-19 years do indeed find themselves in the Midlands for the purpose of instruction rather than that of employment, and it would therefore seem to be justified to exclude this quinquennial group from the overall population of working ages. Any resulting underestimation of the size of the potential labour force on this count, would presumably be more than compensated for by the inclusion of the entire age group 20-24 years, which is known to include a substantial number of students.

Therefore, expressing the burden of dependency as a ratio of the sum of persons aged 0-19 plus those aged 65 years and over, to persons aged 20-64 years, this ratio may have risen from 104.1 in 1960 (See Chapter II, Table 16) to 111.0 in 1970. Assuming the comparatively low net out-migration rate of 1.0 per cent per year, yielded a dependency ratio of 110.0 for 1980, as compared to 125.7 when the net out-migration rate was assumed to be 1.7 per cent per year.

The projection also suggested an intertemporal lowering of the regional male population share (49.3 per cent in 1960); this, however, follows automatically from the assumption of a male surplus in the body of residual migrants from the region.

The "high" estimate of 51,550 persons for 1980, obtained from the projection by means of the cohort survival method, agreed fairly closely with both the "high" (51,940) and "low" (51,060) estimates for the same year, obtained from the projection of the total population. (See Table 105.) The "low" estimate yielded by the cohort survival method for 1980 (47,980 persons) once more stresses the importance of differential migration, rather than fertility and mortality, in the future development of the Midlands White population.

(2) Coloureds

The "reconstructed" regional population for 1960 (See Chapter III, Table 44) was used as the base for the projection of Coloured numbers by means of the cohort survival method.

According to previous calculation, the average annual rate of Coloured net out-migration from the Midlands appeared to have been about 1.6 per cent during 1960-70 (See Chapter V, Table 79). In the light of observed past trends, the male and female shares in the total body of residual migrants were assumed to be 55 and 45 per cent, respectively. The age distribution of the net out-migrants was assumed to be that which had been estimated for the two respective sexes during the period 1951-60. (See Chapter III, Table 45.)

As suitable life table data were lacking, it was decided to undertake the projection by means of successive schedules of United Nations survival factors, obtained from model life tables.[180] It appears that the South African Coloured males and females had a complete life expectation at birth ($^{o}e_{o}$) of 49.62 and 54.2 years, respectively, in 1959-61. As regional mortality appeared to have been somewhat above the national level (See Chapter III, page 92), it was decided to adopt the United Nations survival factor schedule at "level 60" ($^{o}e_{o}$ = 50 years, for both sexes) for the period 1960-65, and the schedule at "level 65" ($^{o}e_{o}$ = 52.5 years) for the period 1965-70.

Intervening births were estimated at a crude birth rate of 43.0 per thousand (See Chapter V, Table 81), masculinity at birth assumed to be 50.6 per cent,[181] and allowance for infant mortality made in accordance with the relevant survival factor schedules.

The projected numbers, pro-rated to the census date on 6 May, 1970, yielded a total configuration of 86,730 persons, which fell short of the actual census enumeration by 1,000 persons, or 1.1 per cent. After some seemingly appropriate minor adjustments, the 1970 configuration was then projected (via 1975) to 1980, using the United Nations survival factor schedules at levels 70($^{o}e_{o}$ = 55 years) and 75 ($^{o}e_{o}$ = 57.6 years) for the periods 1970-75 and 1975-70, respectively, on the following two assumptions: (a) that net out-migration would take place at the comparatively low average rate of 1.0 per cent per annum, and (b) that it would take place at the comparatively high rate of 1.85 per cent, during the entire projection period. (Compare Chapter V, Table 79.)

As both national and regional Coloured fertility appeared to have declined during 1960-70 (See Chapter V, Table 81) it seems probable that the Coloured population has passed the demographic phase of maximum relative increase and entered a new phase of progressively falling fertility.[182] (See also Chapter II, page 43.) In view of this apparent demographic transition, regional fertility during the projection period was calculated on the assumed crude birth rates of 42.0 and 41.0 per thousand during 1970-75 and 1975-80, respectively, on both assumptions (a) and (b).

Assumption (a) resulted in the comparatively "high" population estimate of 102,870 Coloured persons for 1980, and assumption (b) in the comparatively "low" estimate of 93,570 persons for the same year. The distribution of these configurations is shown in Table 107, and related to the sex-age distribution of the Midlands (reconstructed) Coloured population for 1960 in Figures 48 and 49.

TABLE 107: ESTIMATED SEX-AGE DISTRIBUTION OF MIDLANDS COLOURED POPULATION (PER CENT)

Age Group	1970		1980-assumption (a)		1980-assumption (b)	
	Males	Females	Males	Females	Males	Females
0- 4	8.3	8.4	8.1	8.0	7.9	7.9
5- 9	7.4	7.3	7.2	7.2	7.6	7.6
10-14	8.0	8.3	6.6	6.7	7.1	7.3
15-19	6.6	6.9	5.7	6.3	5.9	6.8
20-24	4.4	4.8	5.7	6.2	5.8	6.3
25-29	2.1	2.7	4.3	4.6	3.8	4.3
30-34	1.6	2.2	2.5	3.1	2.0	2.8
35-39	1.6	2.0	1.1	1.8	1.1	1.5
40-44	1.6	1.7	1.0	1.5	1.0	1.3
45-49	1.5	1.5	1.1	1.4	1.0	1.3
50-54	1.4	1.4	1.2	1.2	1.2	1.2
55-59	1.3	1.3	1.0	0.9	1.2	1.0
60-64	1.0	1.0	0.9	0.9	0.9	1.0
65-69	0.6	0.7	0.8	0.7	0.6	0.8
70-74	0.5	0.7	0.5	0.6	0.4	0.6
75+	0.5	0.7	0.5	0.7	0.3	0.5
Total	48.4	51.6	48.2	51.8	47.8	52.2
Persons (both sexes)	87,730		102,870		93,570	

The projection suggested an increase in the median age of the Midlands Coloured population from 15.0 years in 1960 to 16.3 years in 1970. This would therefore represent a break with the trend which had been observed in the past, namely, that out-migration promoted regional demographic juvenescence. (See for example: Chapter II, page 56.) The median age of the Midlands Coloured population was expected to rise further to 17.1 years by 1980 assumption (a), while it would remain constant at 16.3 years on assumption (b). The end of the process of demographic juvenescence would, of course, be the direct outcome of declining fertility levels.

In terms of the regional population pyramids, set out in Figures 48 and 49, there was an expected intertemporal narrowing at the base of the pyramid (ages 0-9 years) because of the assumed progressive decline in fertility. This was followed by an expected 1980 surplus of males aged 10-29 years and females aged 10-34 years, as a result of the comparatively higher past levels of fertility, coupled with declining mortality. At higher ages, there was an expected 1980 versus 1960 general deficiency of persons of both sexes, which would in turn be associated with the past

FIG. 48: ML COLOUREDS – CENSUS and PROJECTION ('high')

1960 1980

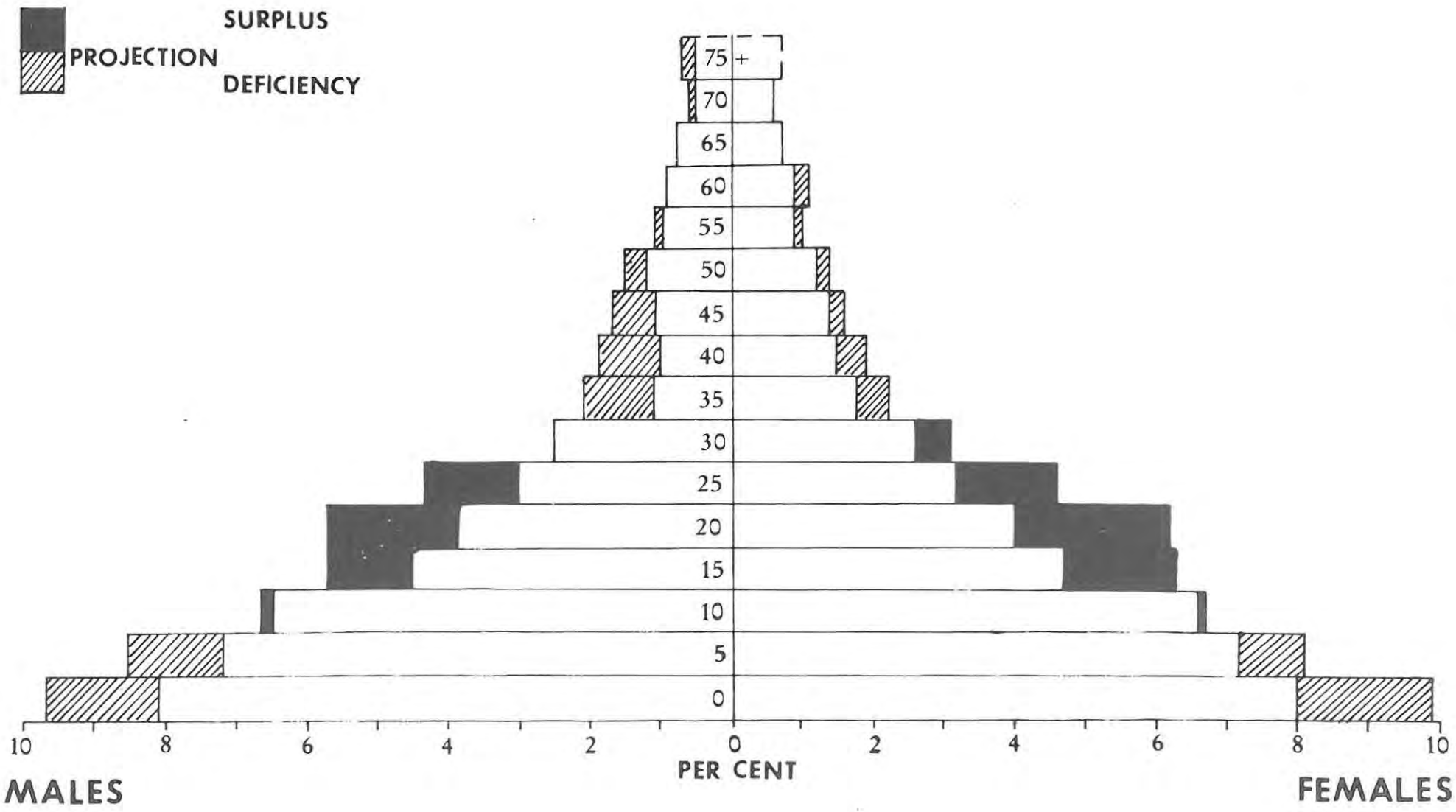
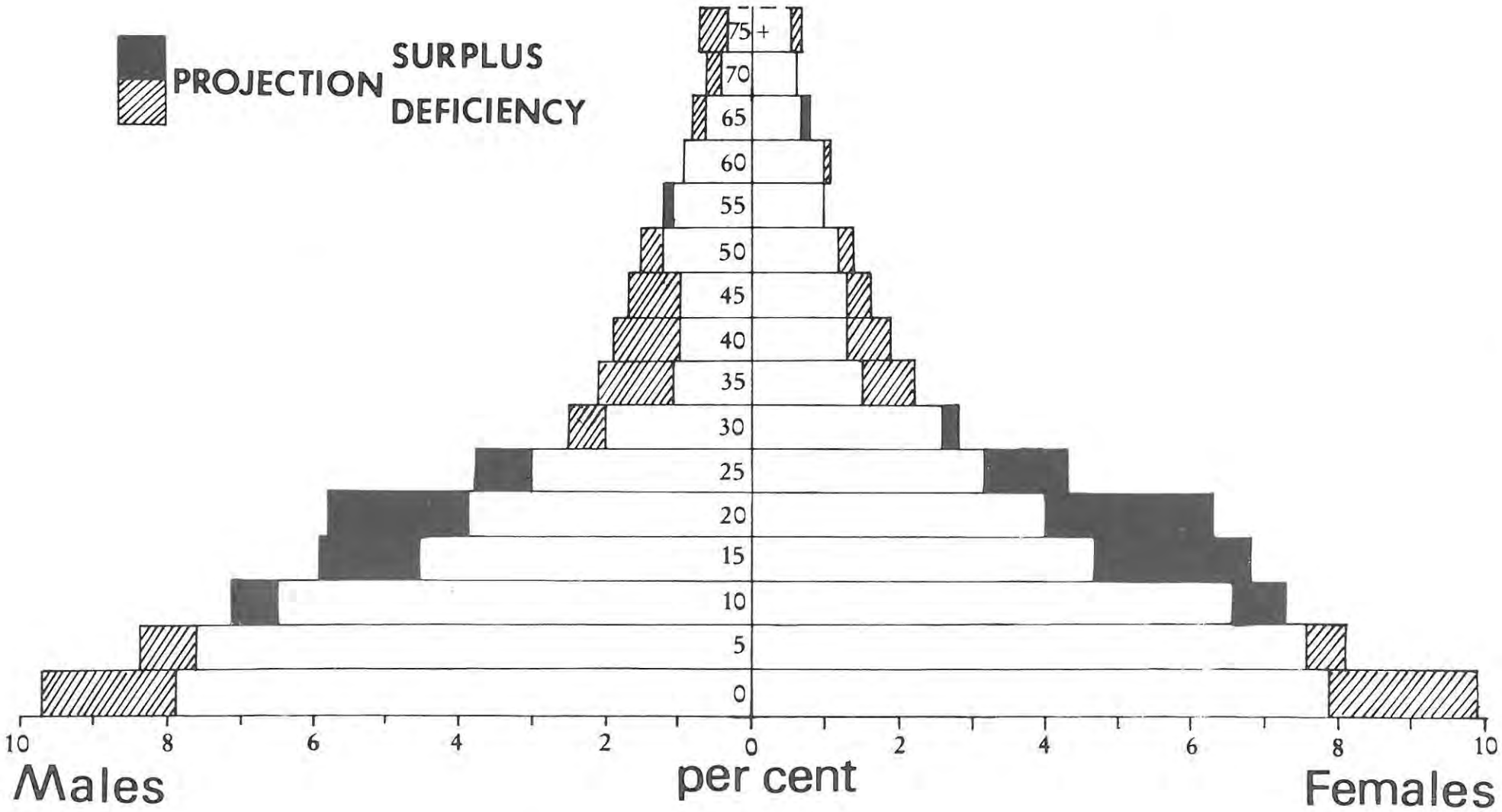


Fig.49: ML Coloureds – Census and Projection ('low')

1960 1980



out-migration of persons of working ages.

The projected figures thus imply a general decrease in the burden of dependency of persons aged 0 -14 plus 65 years and over, on the persons of working ages, 15-64 years. The dependency ratio may have fallen from 113.7 in 1960 to 109.2 in 1970, and is expected to decline further to 90.8 in 1980, on assumption (a), or 94.6, on assumption (b). This expected intertemporal increase in the relative size of the Midlands Coloured labour force does, of course, presuppose that sufficient employment opportunities will indeed be available within the region. Otherwise higher rates of net out-migration should be expected, which would again serve to raise the dependency ratio.

As with the White population, the regional Coloured projection suggests an intertemporal decline of the male population share (49.7 per cent in 1960) but here again this would simply be the consequence of the assumed male bias among the residual migrants from the region.

The "high" estimate for 1980, obtained by the cohort survival method, exceeded the "high" estimate from the projection of the total population (in Table 105) by 2,860 persons (or 2.9 per cent), while the "low" estimate obtained by the former method fell short of the "low" estimate by the latter method by 3,900 persons (or 4.0 per cent). These discrepancies yet again emphasise the importance of different migration rates in the future development of a regional population.

Owing to the deficiency of basic data, regional projection of the Bantu population by the cohort survival method would be a highly speculative venture. Available information does, however, indicate certain broad lines along which the Midlands Bantu population is likely to develop.

The South African Bantu population as such is still in the "explosive" phase of demographic evolution, characterised by high fertility and declining mortality, which suggest a future acceleration in its rate of natural increase.[183]

Indirect evidence indicated that while there was no great difference between regional and national mortality, Bantu fertility in the Midlands may well be above the national level. (See Chapter III, page 104.) Continued net out-migration of persons (especially males) of working ages, the rate of which appeared to have accelerated significantly between 1960 and 1970 (See Chapter V, page 164), would in such circumstances lead to further demographic juvenescence and increase the burden of dependency on the working population.

(c) Some implications of the projection results

The projected figures in this chapter are, in principle, compatible with the general presumption of a future decline in the rural population, of all races, within the Midlands region. The two major imponderables of the situation are (i) the rate at which rural population loss will take place, and (ii) the extent to which the Midlands towns will be able to absorb such migrants, that is, the extent to which the anticipated rural-urban population shift will be an intra- or interregional process.

In 1970, 13.2 per cent of the White, 26.0 per cent of the Coloured and 66.9 per cent of the Bantu population of South Africa were returned as residents of rural areas, the corresponding Midlands figures being 26.9, 40.1 and 61.0 per cent. Viewed against the national background, there would thus seem to exist some appreciable future scope in the Midlands for continued rural net out-migration

of persons belonging to all three race groups, considering that the traditionally rural Bantu homelands are of rather limited significance within the present regional context.

The rate of White rural depopulation in the Midlands has been persistently above the national rate, but it has not tended to accelerate during recent census intervals. It may well be that the following comment by the Commission of Enquiry into Agriculture could also be relevant to the Midlands case: "It may be expected that the declining trend in the (national) rural White population will not continue at the same rate indefinitely. The country will eventually reach the stage when the decline in numbers will tail off, especially if more positive attention is given to programmes to promote the development of rural areas."[184] The impact of the Orange River Project and the fortunes of wool farming are bound to have an effect on rural population numbers in the Midlands, but there appears to be no practical way of gauging their quantitative implications at the present stage.

It has emerged from this study that the Midlands towns have absorbed only a fraction of those White persons who have left the land; between 1960 and 1970 there was indeed an absolute decline in the region's urban White population numbers. Assuming complementarity, rather than substitution, in the employment of White and Non-White labour, declining White urban numbers would then also tend to promote an increased exodus of Non-White persons from the Midlands as a whole. Rural out-migration accelerated considerably in the case of both regional Coloureds and Bantu during 1960-70, but this was still accompanied by fairly high regional urban growth rates. (See Chapter V, Table 80).

There are, however, indications that local Non-White labour has been utilised somewhat unproductively in the past. According to Sadie's findings, approximately one European worker is required, on the average, for the employment of 7.4 Africans in the modern sector of the Rhodesian economy.[185] In the case of the combined White, Coloured and Bantu Midlands labour force of some 120,280 persons (Whites 16.2%; Coloureds 21.5%; Bantu 62.3%) in 1960, the ratio of White to Non-White workers was 1:5.2; yet at the same time there was some considerable unemployment among Coloured (See Chapter IV, Tables 57 and 58) and Bantu (See Chapter IV, Tables 64 and 65) workers. The application of the regional crude economic activity rates observed in 1960 (Whites and Coloureds 32.5%; Bantu 30.7%) to the projected figures in Table 105, yields the following rough approximations of the combined Midlands labour force in 1980.

TABLE 108 : ESTIMATED SIZE AND COMPOSITION OF MIDLANDS LABOUR FORCE, 1980

Race Groups	Assumption (a)*		Assumption (b)*	
	Number	Per Cent	Number	Per Cent
Whites	16,880	11.7	16,590	11.3
Coloureds	31,680	21.9	32,500	22.1
Bantu	96,160	66.4	98,220	66.6
Total	144,720	100.0	147,310	100.0

* see p. 238

The estimates in Table 108 above therefore suggest that the ratio of White to Non-White workers in the Midlands labour force may change from 1:5.2 in 1960 to 1:7.6-7.9 by 1980. On the assumption of strict complementarity in the employment of White and Non-White labour, a dwindling White labour force (19,480 persons in 1960), would therefore also mean fewer employment opportunities for regional Non-White workers. If there is no future improvement in the skills of Non-White workers, which would widen the scope for the substitution of Non-White for White labour, the projections in this chapter imply either widespread regional Non-White unemployment, or greatly accelerated rates of Non-White net out-migration from the Midlands in the forseeable future. In the latter case, the present Non-White population projections themselves would, of course, then turn out to have been unrealistically high. Even if large-scale unemployment were to be prevented by increased out-migration, there would still remain a problem of regional Non-White poverty. Previous research has shown that remittances by urbanised (Bantu) workers to their kinfolk in rural areas, tend to be insufficient to relieve such regional poverty in an effective manner.[186]

Developments along these lines would cause further underutilisation of the socio-economic infrastructure in several of the smaller places within the Midlands, and limit the region's potential growth points to a severely restricted number of larger places, for as Hoover has pointed out: "It is clear that the most basic attribute of such (growth) centres is sufficient size."[187]

II Concluding Remarks

The most striking single impression derived from this study is that the Midlands region has experienced a continuous process of net out-migration of its population throughout the twentieth century. In the case of White persons, net out-migration has exceeded natural increase, and thus resulted in an absolute decline in population size.

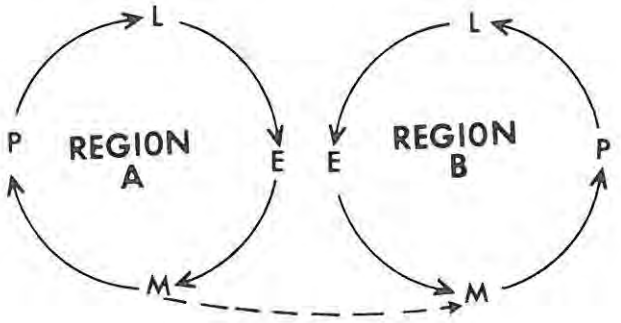
Both direct and indirect evidence show that migration has been mainly economically motivated, and that the regional population loss has been heavily concentrated among those persons who are about to take up employment.

The continuous nature of the process of net out-migration itself also suggests that the interregional differences in income and/or job opportunities, which were apparently responsible for the initiation of the migration process, have not diminished in a significant way with the passage of time. Interregional migration may thus well have had a disequilibrating, rather than an equilibrating, influence on regional development patterns in South Africa. Such regional divergencies may also be seen as the consequence of relative changes in "efficiency wages" (the index of money wages divided by the index of productivity): "In other words, 'efficiency wages' will tend to fall in regions (and in the particular industries of regions) where productivity rises faster than the average. It is for this reason that relatively fast growing areas tend to acquire a cumulative competition advantage over a relatively slow growing area; 'efficiency wages' will, in the natural course of events, tend to fall in the former, relatively to the latter - even when they tend to rise in both areas in absolute terms."[188]

The dynamic consequences of the interaction of economic and demographic forces for economically backward and prosperous regions, may be illustrated by

the two negative feedback loops in Figure 50.

FIG. 50: NEGATIVE FEEDBACK



(P = Population Size; L = Labour Force; E = Employment Opportunity; M = Net Migration)

Thus the size of the population determines the size of the labour force (supply of labour), which is confronted with a given regional employment opportunity (demand for labour). If supply and demand are not in alignment, unemployment and labour shortages tend to develop in the backward (A) and prosperous region (B), respectively. Given interregional mobility, these conditions would thus cause labour to migrate from Region A to Region B. This would, in turn, retard population growth in A and raise it in B by more than its natural increase.

If these developments resulted in a realignment of labour market conditions in the two regions, the process of interregional labour migration would also cease - and the feedback would have been positive. However, in the case of the Midlands region this has clearly not happened. Although population growth has been retarded, thus inhibiting the supply of labour, regional employment opportunities have continued to lag behind those in other regions (especially metropolitan areas), thus leading to further net out-migration and sluggish population growth. Consequently the feedback has been negative. Expressed differently, the relative fall in "efficiency wages" in Region B, has served to magnify the differences between the two regions, thus causing region A to experience a continued loss of its population of working ages.

Seen against the background of this negative feedback, Region B has experienced an intertemporal gain at the expense of Region A, which has not been compensated for its loss. In terms of Paretean welfare economics, it would not be permissible to assess the merits of such a situation, as this would involve interpersonal - here interregional - comparisons.[189] Within the dynamic framework of Pigovian welfare economics, the situation could, however, not be interpreted as one of increasing total welfare, seeing that overall economic growth has been accompanied by increasing distributional inequalities.[190] Pigovian welfare economics is, however, noted for its rather explicit value judgments, which economists in general have traditionally tried to avoid.

The reluctance to make value judgments, thus also prevents the (positive) economist from reaching normative conclusions, as well as from making policy recommendations. This state of affairs may seem to deprive much economic analysis of common sense, for as Boulding puts it: "One wonders if the Paretean welfare economics has come up with anything as practically useful as the famous Pigovian proposition that Smoke is a Nuisance!"[191] From the viewpoint of regional authorities and associations, which are not subject to the same constraints as the positive economist, population loss and economic backwardness are clearly undesirable. But on the whole, the effects of regional self-promotion by local bodies have not been spectacular.[192] Although economically backward regions are often already characterised by more than normal employment in government activities,[193] further outside intervention would appear necessary to arrest regional population loss and backwardness. In terms of Figure 50, this would imply central government action with regard to the variable E (Employment Opportunity), designed to change the negative into a positive feedback.

The central government's regional policy in South Africa seems to contain a definite geographical bias, namely, the decentralisation of resources in the direction of the official Bantu homelands.[194] Viewing the South African economy against a space-time continuum, there would thus seem little prospect of effective economic improvement in several non-metropolitan regions, such as the Cape Midlands, unless there is a distinct change of emphasis in the central government's overall policy of regional development.

It seems reasonable to assume that the national authorities are, in principle, open to suggestions by local bodies, whose positive task it would be to identify potential growth points within their region. The projections undertaken in this chapter suggest moreover that a continuation of past trends, far from promoting economic growth, are likely to lead to a serious problem of Non-White unemployment and/or poverty in the Midlands region (See Section I (c)). Whether emphasis should fall on the promotion of growth or the prevention of poverty, sound policy proposals must be based on adequate regional data. A seemingly modest, yet extremely useful, function of local bodies would therefore be the collection and publication of regional statistics.

The two most serious deficiencies of regional demographic data, in the present case, are the lack of information about (i) the size and composition of the institutional population, and (ii) the annual movement of migrants.

As long as the central authorities do not distinguish statistically between institutional and non-institutional population or maintain a continuous population register, which constitutes the most satisfactory basis for the calculation of migration rates, local authorities may derive some considerable benefit from developing such statistical sources on a regional basis.

III Summary

The future population estimates for the Midlands region in this chapter, should not be regarded as forecasts of the most probably future population numbers, but rather as projections which follow from a given set of assumptions. The major element of uncertainty surrounding these assumptions is the future extent of interregional migration.

If the White, Coloured and Bantu population groups were to continue to change in size according to their past growth rates, the Midlands region might have

a total population of some 563,000 - 596,000 persons by the year 2000. There would be an expected intertemporal fall in the White, rise in the Bantu and no major change in the Coloured relative population shares.

The sex-age composition of the regional White and Coloured population groups was also estimated for 1980. In the case of the Whites, there may be a future decline in median population age, as further net out-migration would tend to raise the relative importance of the institutional population component of studying ages. This could be accompanied by an increase in the burden of dependency on the local working population. As Coloured fertility appears to have started to decline, a continuation of this trend would raise the median age of this population group and, in spite of net out-migration tend to reduce the burden of dependency on the regional labour force, according to the rates of net out-migration assumed here. Although Bantu statistics are deficient, a combination of high fertility and regional net out-migration, may be expected to lead to further demographic juvenescence and thus serve to raise the burden of dependency.

In the light of past regional trends and against the national background, there seems to exist some considerable future scope for rural depopulation in the Midlands. On the assumption of strict complementarity in the employment of White and Non-White labour, the projected figures suggest that the region as a whole may have to face increased Non-White unemployment, or accelerated Non-White out-migration. In either case, there is a distinct future prospect of widespread Non-White poverty.

In the absence of outside intervention, which would amount to positive central government action to stimulate the region's economy, the Midlands is likely to continue to experience population loss and economic backwardness. This would lead to further underutilisation of infrastructure and limitation of potential growth points.

In order to be in a position to advance convincing policy proposals, local authorities would need more detailed statistical information than that presently available. With regard to demographic data, it would be of special importance to determine the size and composition of the region's institutional population, and the annual number of interregional migrants.

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