MIGRATION FOR EMPLOYMENT PROJECT

SOUTHERN AFRICAN MIGRANT LABOUR SUPPLIES IN THE
PAST, THE PRESENT AND THE FUTURE, WITH
SPECIAL REFERENCE TO THE GOLD-MINING
INDUSTRY

by

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A. FOREWORD

This is the forty-first paper to appear in the World Employment Programme research working paper series of the Migration for Employment Project. The aim of the Project is to investigate the implications of international migration movements from low-income to high-income countries for economic and social policy-making.

In this paper - the seventeenth to be concerned with the region of southern Africa (see appended list) - the author chiefly seeks to explain the varying recourse of South African employers to supplies of black labour from outside the country. In doing so, he concentrates on the gold-mining industry as the key employer of foreign Africans, and on the changes in the 1970s. The latter seem to have ushered in a long-term trend of gradual replacement of foreign by local Africans. In the short-term, this will make still more difficult the already overwhelming development problems of South Africa's neighbours.

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B. SOUTHERN AFRICAN MIGRANT LABOUR SUPPLIES IN
THE PAST, THE PRESENT AND THE FUTURE, WITH
SPECIAL REFERENCE TO THE GOLD-MINING INDUSTRY

by

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I. THE FORMATION OF AFRICAN LABOUR SUPPLIES AND THE ROLE OF FOREIGN LABOUR

(a) INTRODUCTION

Labour migration in southern Africa finds its origin in the discovery of the vast mineral wealth of South Africa in the latter part of the last century. The exploitation of that mineral wealth required enormous supplies of labour. Heavy demands were also placed on agriculture to support a rapidly expanding urban population. The process of commercialisation of agriculture likewise required large amounts of labour.

The labour demands of a rapidly expanding economy in a relatively underpopulated southern Africa manifested itself in initially growing labour shortages. In this first section we investigate how South Africa in general, and the gold-mining industry in particular, responded to shortages of African labour, how labour supplies were formed and what changes occurred in the African labour market over time. Concentration on the gold-mining industry derives from the fact that, historically, it has been the largest single employer of foreign African labour.

(b) SOUTH AFRICA PRIOR TO THE MINERAL REVOLUTION

In the 1860s, on the eve of the discovery of the vast mineral wealth of South Africa, the territories comprising the country were almost totally dependent upon agricultural production. The poorer of the four white-dominated territories were the Afrikaner republics of the Orange Free State and the Transvaal. In the latter territory, subsistence-agriculture was largely the economic base for the great majority of Europeans and Africans. The Orange Free State, with its extensive pasture land, was conducive to raising sheep; and its inhabitants maintained some contact with the exchange economy of the coast by selling or bartering wool with itinerant or resident traders (Neumark, 1956). The British colonies of Natal and the Cape Colony were at the time somewhat better off than the Afrikaner republics, although still poor. Natal, with its generous rainfall, had experimented with various export crops and had finally settled on sugar. Since Africans did not prove to be amenable to working on the sugar plantations, indentured Indian labourers were imported beginning 1860. Along the coastal belt of the Cape Colony the climate was particularly suitable for the production of wheat, fruit, butter and maize which were marketed internally, along with hides, wine and ostrich feathers for export. The proximity of the coastal belt farming area to the sea permitted transport of produce by ship at reasonable cost, whereas transport from the interior of South Africa was prohibitively expensive. That transport between the coast and interior was of the most rudimentary form, and hence expensive, is reflected by the fact that it took three months for goods to reach Bloemfontein in the heart of the Orange Free State from Port Elizabeth, only 400 miles away (Wilson, 1971, p. 108).
The previous 200 years in South Africa had seen a slow expansion of the eastern frontier about the Cape settlement. Growth of the European population was insignificantly reinforced by immigration, unlike the cases of North America, Australia and New Zealand. Indeed the great 19th century wave of immigration from the British Isles and Europe simply passed South Africa by. By the middle of the 19th century the estimated European population of South Africa was approximately 200,000. In 1854, the white population of the Cape Colony was 140,000, and that of the Orange Free State, 15,000. In 1872 the Transvaal had 30,000 and in 1865 Natal enumerated 8,500 (Houghton, 1971, p.7). No figures with respect to the number of Africans are available.

The Afrikaners, as the predominately Dutch and French settlers came to be known, were never amenable to the controls to which the colonial governing authorities attempted to subject them. Their resentment of colonial authority became even more pronounced when the British assumed control over the Cape in the early 19th century. The comparatively liberal racial attitudes brought to the Cape along with British control conflicted with a basic philosophical tenet of the Afrikaner race, that of white supremacy. Their use of Hottentots, imported slaves and Bantu to perform manual labour on their farms left the Afrikaner with the attitude that menial physical labour on the part of whites was degrading. No white was to perform physical labour for another. These attitudes were to have a considerable impact on the political economy of resource allocation throughout South Africa's development. It was these doctrines which were to be most fundamental to Afrikaner political ideology which in the final analysis was to prevail against the integrating tendencies of competitive market forces. When the British emancipated slaves in the Cape in 1834 the reaction by the Afrikaners was predictable. Herding their cattle and transporting their few household effects by oxwagen, the "Voortrekkers" in great numbers moved out of the Cape colony.

As a result of their comparative isolation from the economic and social influences of a changing Europe, the Afrikaner frontiersmen, or trekeboere as they were called, underwent a process of economic and social retrogression concomitant with their penetration of the vast interior "platteland" of South Africa. Pushing into the Cape interior they became, for all practical purposes, subsistence farmers and graziers with minimal contact with the exchange economy of the coast. Their right to settle these new lands was hotly contested by the many indigenous African tribes (see Robertson, 1934-5, and Thompson, 1971). But by the 1860s they had secured this area, carving out large farms on which to graze their cattle and grow what crops they required for subsistence.

Many Africans, dispossessed of their land, went into the service of whites or squatted on white farms. Since land was plentiful for the whites, but capital and labour scarce, the majority of Afrikaner farmers did not discourage such squatting. Indeed, they charged such Africans rent payable in labour services, crops or both. Thus, in the Orange Free State and to a considerable extent in the Transvaal, the relationship between African and Afrikaner had all of the economic markings of feudalism.
In the African territories (the most important of which, measured in terms of population density, were Zululand, Basutoland, Swaziland and the Transkei), the trekeboeres initially had little social or economic impact, except to increase the population density by containing African movement and pushing Africans off white land. Agricultural production was still subsistence-oriented.

On the eve of the mineral discoveries which were to transform South Africa, the economy was entirely based on agriculture. Farming was extensive and largely for subsistence, and in no way was ready to satisfy the demands of the incipient urban-mining town market.

(c) MINERAL DEVELOPMENTS AND THE FORMATION OF LABOUR SUPPLIES

In 1867 an event occurred which was to transform the economy of South Africa and move it along the road toward industrialisation. Diamonds were discovered in what was to become the eastern Cape frontier after the British annexed the diamond producing area. By 1869 the first diamond rush was on, with diggers pouring into the area along the Orange and Vaal rivers to work alluvial deposits. Several years later diamonds were discovered where the mining city of Kimberley is now located. The diamonds there were found in four large volcanic pipes. Such deposits were unique in the history of diamond mining; previously, diamonds all over the world had been found in alluvial deposits. At Kimberley deep-level mining became necessary and hence established the basis for an urban mining complex.

By 1877 the population of Kimberley was estimated to be 45,000, comprised of 15,000 whites, 10,000 coloured and 20,000 Africans (Knowles, 1936, p. 206). This was a concentration of population second only to that of Cape Town. Of the Africans employed on the digging, a large proportion were brought in by recruiters and supplied to the companies for a capitation fee. Once the level of demand for labour stabilised, this practice became unnecessary as sufficient labour came to the diggings voluntarily.

The deep-level mining of diamonds ran into technical difficulties in the first years at Kimberley. Thousands of individual claims within the small area of the pipes made excavation exceedingly difficult as the depths of the diggings increased. However, by 1888 the financial and administrative power of Cecil Rhodes had prevailed and consolidation of the many diamond mining companies was completed (van der Horst, 1942). The consolidation permitted the application of machinery which on smaller holdings was uneconomical. From there on, de Beers Consolidated Mines Limited dominated the South African diamond mining industry. Output was reduced - as was demand for labour - and was henceforth adjusted to world demand so as to stabilise world diamond prices: a classic case of market strategy by a monopolist. However, the Kimberley diamond mining industry was to be completely overshadowed by the discovery and development of the Witwatersrand gold fields.

In 1886 the Witwatersrand gold fields were proclaimed. Located where Johannesburg now stands, the Witwatersrand lay deep in the Transvaal, the poorest and most backward of the four white South African territories at that time. Foreigners poured into the Transvaal, bringing the skills needed by the many gold-
mining companies. The period 1890-1913 saw an average annual white immigration of 24,000 (Houghton, 1969, p. 13). Demand for labour by the rapidly expanding industry was insatiable. From its beginning, production was based on a relatively small number of skilled workers in combination with large quantities of unskilled African labour. The latter were recruited from all over southern Africa, both inside and outside of South Africa, at considerable expense to the mines.

By 1889 only about 6,000 Africans were employed in the Witwatersrand mines; a decade later they numbered approximately 97,000 (Transvaal Chamber of Mines, Annual Report, 1889 and 1899). The growth of employment of white workers was equally as great. Table 1 provides details of the average number of white and black workers employed by the gold mines in selected years.  

Wages for the skilled labour were necessarily high, in order to attract experienced miners from overseas. But skilled labour has always been but a small fraction of the total labour force employed in the mines. Given the distribution of various grades of ore and the desire to maximise profits over time, the gold-mining industry has always relied heavily on African labour and hence has always been concerned with the terms on which it could secure their services. In its infancy the industry experienced rapidly rising costs, as competition for a limited supply of African labour among the mining companies resulted in rising wages for black labour. To prevent further increases in this significant cost component, many of the companies recommended the elimination of wage competition for African labour. It appears that this was a fundamental reason behind the creation of the Chamber of Mines in 1889, as evidenced by the following quotation from its sixth annual report published in 1895:

"Since formation of the Chamber continuous attention has been given to the subject of devising means by which the supply of labour could be made to meet the constantly growing requirements of the mining industry, and by which also wages could be reduced to a reasonable level".

With regard to recruitment of labour, it was recognised by the Chamber that the outlay of considerable sums for labour recruitment would not be justified unless the individual firms were assured that recruited workers could not legally break their contract by moving on to another mine, or perhaps to another industry. To ensure the firms an adequate return for their recruitment expenditures, the Chamber formulated a "pass law" adopted and enforced by the Transvaal "Volksraad" in 1894. Reference to this law was made in the sixth annual meeting, held in 1895:

"... the Chamber drafted a set of Pass Regulations, which provided means for the proper registration and identification of natives, and for compelling them to fulfill contracts voluntarily entered into. With these regulations in force the companies would be warranted in incurring the very considerable expense of bringing 'boys' from a distance; as, though the initial cost would be heavy, full compensation would be found in the reduced rate of wages". (Transvaal Chamber of Mines, Annual Report, 1895).
During the decade prior to the turn of the century, the Chamber was not completely successful in achieving its objectives. In periods when demand for African workers was greater than supply, competition for the limited supply forced up wage rates. It was not until after the South African War (1899-1902) that the Chamber was successful in reducing the cost of black labour while, at the same time, increasing its supply. This was primarily achieved by centralising the recruitment of African labour. In 1900 the Chamber established the Witwatersrand Native Labour Association (WNLA) for this purpose, hoping to reduce recruitment cost. Its regulations stipulated that:

"No Company, whilst a member of the Witwatersrand Native Labour Association, will be allowed under any circumstances to engage any but white labour, except through the agency of the Association. This will apply: (1) to all natives who, from having previously worked on your mine, or who from any cause may come forward and seek such work voluntarily; (2) to those who have been recruited within or without the Transvaal - in fact to all natives or coloured men employed either above or below ground on your property". (Transvaal Chamber of Mines, Annual Report, 1900-01, p. 112).

This was to have significant repercussions in the market for African labour. Clearly, by acting in concert with respect to the recruitment and distribution of labour the industry would be able to derive the profits associated with being a perfectly discriminating monopsonist.

In addition to centralising the recruitment and distribution of black labour on a non-profit basis, the Chamber also attempted to reduce wages. In this it was not successful. Social dislocations caused by the South African War, together with alternative wage-employment opportunities for Africans (on infrastructural projects at higher rates of pay), caused the number of Africans recruited to work in the mines to fall far below pre-war levels. In general, there were complaints by many that there was not enough black labour in southern Africa to fulfill the labour requirements of South African industry and agriculture - an opinion which was confirmed by the 1904 report of the Transvaal Labour Commission. The Commission was especially influenced by testimony from the Chamber of Mines. However, two members of the Commission dissented from the Majority Report, noting their belief that the shortfall in the mining sector's labour requirement was largely a result of the Chamber's abortive attempt to reduce wages. Nonetheless, the end result was that the mines were allowed to import indentured Chinese labour. Humanitarian opposition in Britain soon brought an end to this importation, and in 1907 the legislation permitting it was repeated. The mines were, however, able to maintain their supplies of labour as a result of intensified recruitment and a fall-off in the post-war boom which reduced the demand for labour in other sectors.

Thus, in little more than a decade after development of the gold fields had commenced, the many firms comprising the industry were acting in concert on the market for African labour. Recruitment had been completely centralised, and the firms' wage rates were being dictated by the Chamber, using the system of fixing a maximum average wage. Fixing a maximum average rather than a simple maximum rate was designed to achieve a dual purpose: to prevent individual mines from bidding up average rates of pay, while permitting individual mines some degree of flexibility with regard to organisation of their work force through adjustment of wages to reflect differing degrees of productivity among individual workers (van der Horst, 1942, pp. 165-6).
The Chamber has displayed keen awareness of the importance of having recruitment area size as a choice variable in its efforts to obtain the labour requirements of its members. The geographic area over which it has spread its recruitment of African labour increased considerably with time. Table 2 provides information with respect to the changing sources of African workers obtained from various countries within southern Africa over time.

(d) LEGISLATED LABOUR SUPPLIES IN THE FIRST DECADES OF THE 20TH CENTURY

(1) LEGISLATION AND AFRICAN AGRICULTURE

The major purpose of the formation of the Chamber of Mines was to prevent wage competition among individual mines by centralising labour recruitment. Although it was not initially successful at achieving desired reductions in wage rates, the organisation was successful at preventing further wage increases. As indicated by Table 3, in spite of a significant growth in labour demand, wages did not increase. In the early part of the 20th century the agricultural sector of South Africa also exhibited an insatiable growth in demand for African labour without forcing up wage rates.

Some scholars have argued that the lack of growth of wages derived from a division and specialisation of labour in the African subsistence-agricultural sector which results in redundant male labour, i.e. "surplus labour". If surplus labour exists, then redundant workers can seek temporary employment outside the subsistence sector without reducing output on (family) agricultural holdings. However, if the withdrawal of a worker reduces farm output, i.e. if surplus labour is exhausted, then additional wages will have to be offered to compensate the worker and his family for such a loss. Thus, so long as there exists surplus labour, the modern sector can continue to expand, withdrawing labour from the subsistence sector, at a non-increasing wage rate.

According to Barber (1961), it was the existence of redundant male African labour in the subsistence sector which explained the non-increasing wage trend in the Rhodesian modern sector from 1929-45. However, Arrighi (1970) has cast serious doubt on the validity of Barber's analysis and, consequently, on the whole notion of endemic surplus labour. According to Arrighi, the explanation of the non-increasing wage trend in Rhodesia lies in prior changes in the African subsistence sector which made it increasingly necessary for Africans to undertake wage employment. Basically, these changes were a rising conventional subsistence level, which increasingly included non-traditional goods requiring cash for their purchase, and a decreased capacity of Africans to obtain these goods through the sale of agricultural commodities. The latter was in turn traceable to the displacement of African agriculture by state-subsidised white agriculture and the voluntary and involuntary removal of Africans from white agricultural areas, near transport routes, to the rather inaccessible "reserved" areas where over-stocking and crowding led to a deterioration of African agricultural productivity. In a nutshell, the increasingly uncompetitive position in which African agriculture found itself increased the "effort price" of securing cash through the sale of agricultural commodities relative to the "effort price" of securing cash through entering wage employment.

For South Africa, Clarke (1977b) sees a similarity between the Rhodesian and South African experiences in the proletarianisation of African labour supplies. He lays great stress on the role of the colonial administration undertaking or backing measures which
virtually force African workers into wage employment. These measures essentially are asset confiscation of both land and cattle, and the taxing of Africans. Also important to the proletarianisation process is the subsidised development of white agriculture and the neglect of African agriculture. By these actions, Clarke argues, the "natural economy" of the traditional African peoples is subordinated to the imperatives of the dominant sector of the economic system with the result that its self-reproductive capacity is impaired and oriented to a new set of requirements. The transformation of the "natural economy" creates a surplus of labour, given that adequate means of subsistence necessary to "reproduce the labour supply" cannot any longer be guaranteed after land and cattle assets have been expropriated. Thus, surplus labour finds it necessary to migrate to wage employment to obtain part of its subsistence. However, since part of the migrant's subsistence is drawn from traditional agriculture, the capitalist employer only has to pay a wage equal to the difference between total subsistence requirements and that portion of subsistence requirements derived from traditional agriculture in the so-called Labour Reserve. Through this "primitive accumulation", the capitalist sector reaps large profits. "Accumulation assumes the form of a labour transfer below its costs of reproduction ... So it is the indirect use made of the social means of subsistence, continuously reproduced within the Labour Reserve, which forms the foundation for accumulation of a large element of the stock" [of capital] (Clarke, 1977b, p. 18). Not only are short-run labour supplies secured, however. Capitalist penetration results in a process of "disinvestment" and a "restructuring of the asset base" of the labour reserves which leads to their agricultural deterioration. "Asset appropriation and erosion in asset values, combined with primitive accumulation based on migrant labour, work to reduce the productive capacity in the reserve economy" (Clarke, 1977b, p. 24). This, in turn, ensures continued and increased supplies in the long-run. Eventually this process can lead to a "structural labour surplus" in the labour reserve.

Thus, Clarke would attribute increasing labour supplies principally to political manipulations of the labour supply through the arrogation of African rural assets and concomitant erosion of African agricultural productivity. Unlike Arrighi, whose analysis he draws heavily upon, Clarke neglects the importance of rising conventional subsistence requirements of Africans, which increasingly required cash to fulfill, on the supply of African wage labour. Instead, he holds to the thesis advanced by Wolpe (1972) that wages paid by capitalists will tend to adjust to the partial subsistence derived from agriculture in the labour reserve in such a way that the sum of the two sources of income fulfill basic subsistence requirements. Yet, there is abundant evidence that the conventional subsistence income level of South African Blacks has risen considerably over time, principally through participation in wage employment. Further, Clarke fails to recognize that, in part, declining agricultural production in the labour reserve is a response to rising wages in the industrial sector which results in a greater level and intensity of migration. In short, the deterioration of African agricultural productivity is both a cause and effect of migration.

This is not to argue that the use of political measures to generate labour supplies was not an important feature in the early political economy of South Africa. They were. It is, however, to argue that the history of the formation of African labour supplies is more complex than Clarke's interpretation would suggest. However, let us continue by reviewing the evidence on the political manipulation of labour supplies. We will later analyse the effects of the "colour bar" in holding down the wages of administratively induced labour supplies.
The north and eastward expansion of the Cape frontier and the trekker occupation of the Transvaal and Orange Free State left the indigenous African peoples in those areas dispossessed of their land. Many remained in the newly white-owned areas, others remained in what is now Natal and Eastern Cape Province; there they were able to maintain control of the land— as a combined result of tribal military strength, treaties and British intervention. At the time of Union in 1910, African areas comprised about 7 per cent of territorial South Africa, and 60 per cent of the African population resided in those areas. The remainder were living on European-owned land, both occupied and unoccupied (Native Land Commission, U.G. 26, 1916). Of those living on white-owned land, a considerable portion were sharecroppers. This type of arrangement was especially characteristic of the Orange Free State, where only 244 square miles out of 50,000 were reserved for Africans, whose numbers were something over 440,000. Another type of relationship between Africans and white farmers was that of "squating". If an African was a squatter he was required to provide each year some quantity of labour services to the owner of the property. In return, the tenant was allowed to raise enough crops for his family's subsistence and perhaps to run a few head of stock. These arrangements were severely criticised by many. The basis of their objections was that such arrangements served to diminish the supply of African labour. Complaints were also registered against "free-traffic" in land, which permitted Africans to purchase land from whites. What was happening was that Africans were using the money they had acquired by selling agricultural surpluses and working in wage employment to buy up white-owned land.

In 1903, just after the British defeat of the Boers, the British High Commissioner, Lord Milner, appointed a commission for the purpose of adopting a common policy on the relationship of Africans and whites in all of colonial southern Africa. Labour utilisation on white farms and free traffic in land occupied much of the Commission's attention, and their conclusions and recommendations were to provide the basis for legislation that was, in time, to have a substantial impact on productivity of African agriculture and, hence, on the supply of African labour to the industrial and the white agricultural sectors. The Commission's opinion with regard to the continuation of free traffic in land is illuminated by the following excerpt from its report:

"If this process goes on, while at the same time restrictions exclude Europeans from purchasing within Native areas, it is inevitable that at no very distant date the amount of land in Native occupation will be undesirably extended. Native wages and earnings are greater than they used to be, their wants are few, and their necessary expenses small. They will buy land at prices above its otherwise market value, as their habits and standard of living enable them to exist on land that is impossible for Europeans to farm on a small scale. There will be many administrative and social difficulties created by the multiplication of a number of Native lands scattered through a White population and owning the land of the country equally with them. It will be far more difficult to preserve the absolutely necessary political and social distinction, if growth of a mixed rural population of land owners is not discouraged ..." (Report of the South African Native Affairs Commission, 1906, paragraph 192).

The Commission's recommendations exemplify the way in which the white polity was to subordinate market choices to ideological imperatives in the development experience of South Africa. It was unanimously recommended that:

"it is necessary to safeguard what is conceived to be the interests of the Europeans of this country, but that in so doing the door should not be entirely closed to deserving and progressing individuals among the Natives acquiring land ..."
and resolved:

(a) "that the purchase (of land) by Natives should be limited to certain areas to be defined by legislative enactment;

(b) that purchase of land which may lead to tribal, communal or collective possession or occupation by Natives should not be permitted" (op.cit., paragraph 193).

With respect to squatting and sharecropping, the Commission recommended the stringent enforcement of existing laws against squatting, the taxation of Africans living on Crown lands, and the enforcement of anti-vagrancy laws. It is clear that in this latter recommendation the Commission was responding to those of the white polity who had complained that the existing institutional arrangements with respect to African land occupation and utilisation were interfering with supplies of cheap African labour.

In 1913 the first Union government responded to the findings and recommendations of the Commission by enacting the Native Land Act, which stipulated that no African could, without special permission of the Governor-General, purchase or hire land in other than "scheduled areas", i.e. those traditionally held by Africans as a result of the combined effects of military might, diplomacy and treaties. Almost without exception, it was acknowledged by members of parliament that the fraction of land allocated for African occupation was unjust and inadequate; therefore, the bill was passed with the added stipulation that a commission be created to investigate and recommend what further amounts of land should be released for African occupation in order to achieve a more "equitable" distribution of land between the two races. But nearly 25 years passed before any further land was "released" for African occupation. Under the Native Trust and Land Act of 1936 provision was made for an additional six per cent of territorial South Africa to be added to the reserve areas and purchased with funds voted by Parliament for that purpose. Parliament, however, stopped voting funds as of 1940 with the result that, to date, the government has purchased only one-fifth of the land released for African occupation. The market still operates in the remainder of the released areas, although virtually all land is owned by whites. The 1936 Act also was severe with respect to squatting and sharecropping; it caused the eviction of many thousands of Africans from white farms and their transfer to the reserve areas or their placement as full-time agricultural labour.

Thus, in present day South Africa, the African population owns about 8 per cent of the land and cannot legally increase this share beyond 13 per cent. (Seven per cent of the land is in the reserves and the remaining 6 per cent in released areas). Consequently population density has been increasing in the reserve areas, accompanied by fragmentation of land holdings, overstocking, soil depletion and erosion. The land allocation under the 1913 Act has contributed to falling per capita productivity in agriculture.

The sorry state of agriculture in the African reserves was emphasised by the Tomlinson Commission, which in 1955 was to conduct an exhaustive enquiry into the condition within the "Native areas" and suggest a scheme for their rehabilitation (Report, 1955, p. XVIII). The Commission expected that, by planned development, the agricultural sector of the African reserves could reach a carrying capacity of 2.4 million persons. At that time there were 3.6 million Africans domiciled in the reserves. At present, there are over 8 million Africans domiciled in the reserves.
Thus, growing population pressures in the reserves, the under-development of reserve agriculture and rising conventional subsistence requirements, which increasingly required cash to fulfill, help explain the ability of the Chamber and white farmers to satisfy their ever-growing labour demands without having to rely on wage increases.3

(2) THE INDUSTRIAL COLOUR BAR AND AFRICAN WAGE RATES

The arrogation of African lands by whites in southern Africa and the severe limitation placed on the acquisition of land by Africans largely precluded the development of commercial agriculture by Africans in South Africa. With rising cash requirements, Africans accordingly took up wage employment and migration. However, the pressure to migrate from overcrowded and inaccessible reserves was not the only factor operating to depress real wages in the gold-mining industry.

It was in the gold-mining industry that the integrating effects of uncontrolled competitive market forces first threatened to upset traditional notions of what was supposed to be the white man's work and what was Africans' work. Africans had come to the mines as unsophisticated and unskilled industrial workers, but in the short span of a decade were being substituted for expensive white labour. Reacting to this aspect of the profit-maximising behaviour of the Chamber of Mines, the Parliament enacted the Mines and Work Act in 1911. One section of this act regulated the issuance of certificates of competency in skilled occupation by imposing the restriction that such certificates were not to be granted to "coloured persons" in the Transvaal or Free State. Certificates issued in the Cape Province or Natal were not to be recognised in the Transvaal or Free State (cf. Doxey, 1961, and Hutt, 1964). Thus, an African who might have received a certificate of competency in the more socially liberal Cape Province or Natal would not be able to use it in the former Boer Republics of the Transvaal and Free State where the gold and coal mines of the Chamber's members were located.

With the onslaught of World War I, the mines were faced with an insufficient number of white workers because of their enlistment in military service. With the consent of the government and white mineworkers, Africans were then used in positions previously reserved for whites. After the war the white miners' union pressed the Chamber to draw the job colour-line where it at that time existed. This was done under what came to be called the Status Quo Agreement, 1918. However, within a few years inflated costs of mining, combined with a falling price of gold, were threatening to close marginal mines. The reaction of the Chamber was to broaden the scope of its use of cheap African labour by placing Africans in jobs traditionally performed by whites. White labour was understandably upset that its monopoly position was being encroached upon by the mines' substitution of black for white labour. Negotiations between the miners' union and the Chamber over a fixed employment ratio of blacks to whites and over job reservation for whites broke down, precipitating the famous Rand strike of 1922. For over two months a minor civil war flared on the Witwatersrand. Interestingly enough, the slogan of the striking white mine-workers was "workers of the world unite for a White South Africa" (see Walker and Weinbren, 1961).

The strike failed. Thousands of white mine-workers were laid off and replaced with African labour. The Chamber of Mines had won the battle, but the polity was soon to ensure that the Chamber would lose the war. Two years after the strike the "Pact" government of Afrikaner ideology (personified by General Hertzog) and British trade unionism
(represented by Creswell) was elected (Hertzog became Prime Minister and Creswell Secretary of Labour). From 1924 onwards the policy was in indisputable control of the market. The Pact government immediately turned on the Chamber of Mines by enacting the Mines and Work Amendment Bill of 1926 which made a detailed listing of all jobs that could not be performed by Africans. Thus, white labour in the South African gold-mining industry acquired a perpetual lease on all jobs designated as white. In addition to securing job reservation, the white union won its demand that a fixed ratio of eight blacks to one white worker should obtain throughout the industry.

The implications of this "colour bar" and the fixed employment ratio for the pricing and employment of African labour in the gold-mining industry should be clear. Black wages are held down by legislation restricting Africans to jobs of low productivity. The growth in demand for African labour is stifled by four factors: (i) it is a function of the scarce supply of skilled whites; (ii) it is limited by the inability of the mines to substitute low-cost African labour for high-cost white labour; (iii) because of the colour bar and fixed employment ratio, output is less than it would be in a competitive labour market; and (iv) it leads to the adoption of black labour-saving techniques of production so that the use of expensive white labour can be reduced (cf. Wilson, 1972).

(c) THE PERIOD OF INCREASING LABOUR IMPORTS

By 1940 the forced industrialisation of the South African economy was under way. Diversification of the economy required massive public and private capital formation. This investment was reflected in a rapid expansion in employment in manufacturing as well as public and private construction. The percentage increase in private manufacturing and private construction employment between 1950-1970 was 143 per cent and 242 per cent, respectively; that for mining was 27 per cent.

This large increase in labour demand was also associated with rising African wages in the newly emerging sectors. As can be discerned from Table 4, in 1935-6 the gold-mining industry offered wages which were equivalent to those offered in manufacturing. However, with the very rapid rate of growth of manufacturing and other sectors we find wages offered by these sectors rising. Between 1936 and 1973 current average annual earnings in manufacturing increased by 925 per cent. In gold-mining, over the same period, current average annual earnings rose by 391 per cent. Thus, the difference in average annual earnings between the two sectors increased from 18 per cent to 147 per cent over the same period. Agriculture, which draws heavily on foreign African labour, was also able to maintain its historical low wage position. In 1973 wages in manufacturing were 466 per cent of those in agriculture.

Such substantial sectoral wage differentials caused South African blacks to abandon mining employment in great numbers. As can be determined from Table 2, between 1956 and 1973 South African blacks as a proportion of the mining labour force declined from 52 per cent to 20 per cent. In terms of absolute numbers this amounted to a decline from 165,932 to 86,177.

The Chamber of Mines responded in a predictable fashion to its increasing inability to secure domestic supplies of Africans. Rather than compete with the secondary and tertiary sectors for domestic African labour, the Chamber simply went further outside South Africa to find its labour force. In particular, the Chamber began recruiting "tropical" Africans.
These were recruited principally from Malawi. Tropical African labour became so important to the gold-mining industry that by 1973, 127,000 or over 30 per cent of the Chamber's African labour force was recruited from tropical areas.

Only by use of its recruitment area size variable was the Chamber able to maintain and expand its labour supply without incurring increased wage costs. Whereas most South African blacks had access to the higher paying secondary and tertiary sectors, foreign blacks were largely excluded from these sectors by legislative measures and distance. Such a division of the migrant labour force helps explain the persistence of substantial wage differentials between mining and other sectors since, in theory, labour competition between industries, over time, tends to reduce wage differential between sectors.

(f) SUMMARY

In this section we have learned that actions by the Chamber of Mines in the African labour market, in combination with political factors affecting labour supplies, have generated two distinct phases in gold-mining labour supplies. The first phase runs from the turn of the century to around 1940. It is characterised by a massive increase in the number of South African blacks seeking employment in gold-mining, despite stagnant money wages and declining real earnings. The second phase begins around 1940 and runs through 1973. It is characterised by a large decrease in the number of South African blacks willing to work on the mines, despite a growth in money wages which prevented real earnings from declining. This phase is also characterised by very substantial increases in the number of foreign Africans employed in gold-mining.

The explanations of the first phase line in (a) collusion in the African labour market by affiliates of the Chamber and Mines, and (b) changes in the African subsistence sector which led to increasing cash requirements of the African population while there was a concomitant decline in the ability of the African peasantry to secure that cash through the production of agricultural surpluses. The second phase, that of an increasing relative reliance on foreign African labour, is ascribed to the ability of the Chamber of Mines to extend its labour recruitment area, thus avoiding wage competition with other sectors of the rapidly expanding South African economy.

II. RECENT CHANGES IN THE DEMAND FOR FOREIGN AFRICAN LABOUR IN SOUTH AFRICA AND FUTURE PROSPECTS

(a) INTRODUCTION

Inspection of recent data on the volume, sex and occupation of foreign Africans in South Africa indicates substantive changes in all three since the advent of independence in the migrants' countries of origin in the 1960s. The purpose of this section is to investigate the reasons underlying those changes and to explore their implications for future foreign labour demand in South Africa. Understanding this process of change and its implications for future foreign labour demand is directly relevant to the development strategies of the labour-exporting countries.

Recent changes in South African legislation have increasingly and effectively relegated foreign blacks to a supplementary supply position vis-à-vis South African blacks. Combined with this development, there has been rising African unemployment in South Africa.
This has been due to cyclical and structural factors that have operated on both the demand and supply side of the South African black labour market.

Not all of the changes in the volume of foreign migration to South Africa stem from developments within South Africa. Actions by Malawi and Mozambique significantly reduced their volumes of migration to South Africa and forced the gold-mining industry to look at its labour supply strategy. The result was what has been called the "internalisation" of mine labour supplies.

(b) CHANGES IN THE VOLUME, SEX COMPOSITION AND INDUSTRIAL DISTRIBUTION OF FOREIGN AFRICANS

Table 5 provides information on the volume of employment of foreign Africans in South Africa since 1964. It is important to bear in mind that an undetermined number of these foreign Africans, especially from Botswana, Lesotho and Swaziland, are for all practical purposes permanent residents of South Africa. Thus, the data give us pictures at various points in time of a volume which is partly comprised of "stock", viz. permanent migrants, and partly comprised of a "flow", viz. temporary migrants.

Inspection of the data from Table 5 reveals a considerable decrease in the number of foreign Africans finding employment in South Africa. Between mid-1964 and 1977 the drop was of the order of 120,000 or 25 per cent. However, these figures understate the impact of the decline on supplier countries. Using Botswana, Lesotho and Swaziland as an example, if we were to assume that the same proportion of the citizens of those countries who worked in South Africa in 1964 would have been free to work in South Africa in 1977, then we could have expected 558,000 to be employed in South Africa in 1977, rather than 218,000.

Whereas employment from Botswana, Lesotho and Swaziland in South Africa has declined since 1964, the figures for Malawi show an increase in employment from 1964-1970 followed by a significant decline. The growth and decline of Malawian employment, as well as Mozambican, is related to changes in these countries' contributions to gold-mining labour supplies and reflects causal factors different from those resulting in the Botswana, Lesotho, Swaziland reductions. These will be discussed separately.

Southern Rhodesia/Zimbabwe (in contrast to the trends in employment of Africans from Botswana, Lesotho and Swaziland, Malawi and Mozambique) shows an initial decline from 1964-1970 followed by an equal rise between 1970-1977. (Zambian figures reflect a 1966 decision by President Kaunda that Zambians were not to work in South Africa). Combining all other countries (which are essentially Angola, Namibia, Tanzania and Kenya), we first see a small rise and then a decline in employment from 1964-1977.

To determine the number of foreign workers one cannot use data on "foreign-born" Africans because of large discrepancies in numbers from various sources and because recent South African legislation has increasingly and almost wholly excluded the entry of dependents of foreign workers. As of July 1963, no women or families could be recruited from Botswana, Lesotho and Swaziland, nor accompany male recruits to South Africa (Breytenbach, 1972, p. 42). Neither, after 1966, could any domestic servants be recruited from these countries.

In 1960 a substantial proportion of "foreign-born" Africans must have been dependents of employed foreign Africans. This would have certainly been the case for Botswana, Lesotho and Swaziland whose citizens found it relatively easy to bring dependents to the locality.
of their work prior to the legislative changes of 1956-1966. The 1960 Census enumerated some 586,000 foreign-born Africans and yet, based on reasonable assumptions, it is unlikely that employment of foreign Africans exceeded 410,000 (see Table 6).¹³ Thirty per cent of "foreign-born" Africans would have been economically inactive. However, according to the 1970 Census, only 7 per cent of "foreign-born" Africans were listed as not being economically active (Population Census, [02-05-01], Pretoria, 1971). The reduction in the number of dependents was one of the objectives of South African legislation over that period. The welfare implications of prohibiting foreign employees from bringing their families to the locality of their work need no elaboration.

Data on the sex composition of migration since 1970 is not available. It is undoubtedly the case, however, that the forces which gave rise to the changes in sex composition of migration between 1960 and 1970 have continued to operate. It could be expected that up to the present there have been further absolute and relative declines in the number of foreign African females migrating to South Africa.

Thus, not only has the volume of migrants changed substantially over recent years, but the sex composition of that migration has been radically altered. In fact, it appears that women migrants have borne a very great proportion of the decline in the volume of migration to South Africa over this period.

Information on the industrial distribution of foreign Africans is provided by Table 7. The information clearly indicates a basic trend - an increasing concentration of foreign Africans in mining employment and a large decline in non-mining employment since 1964. Between 1964 and 1978 total employment of foreign Africans decreased by one third from 484,000 to 327,000. However, over the same period non-mining employment decreased by two-thirds. Thus, whereas in 1964 mining accounted for 58 per cent of total foreign African employment, today it accounts for about 80 per cent of the total.

Undoubtedly, mining has become the most important employer of foreign African labour since 1964. In fact, South African mining, in general, relies heavily on foreign African labour. In 1964, more than half of all African miners were foreigners while in 1978 the figure was around 45 per cent. With regard to the total non-agricultural African workforce, foreigners accounted for 14 per cent of African employment in 1964 and 9 per cent in 1978.

(c) DETERMINANTS OF CHANGING PATTERNS OF DEMAND FOR FOREIGN AFRICANS

There are essentially three substantive and, to an extent, interrelated determinants of the recent changes in the demand pattern. The first explanation is to be found in legislation which has fundamentally altered the legal status of foreign Africans vis-à-vis employment in South Africa, particularly those Africans from Botswana, Lesotho and Swaziland. Secondly, changing conditions in the South African black labour market and changes within the South African "homelands" have reduced the need for South African industry to rely on foreign African labour. Thirdly, much of the change in the volume of foreign African employment was forced upon South Africa by actions on the supply side of labour market by Malawi and Mozambique.
THE IMPACT OF SOUTH AFRICAN LEGISLATIVE CHANGES

The Changing Legal Status of Migrants from Botswana, Lesotho and Swaziland: An Alienation of Historical Rights

Until the 1960s there was practically no statutory difference between South African Africans and those from Botswana, Lesotho and Swaziland. All Africans from Botswana, Lesotho and Swaziland were subject to the same draconian laws controlling the movements of blacks. So open were the borders between the then High Commission Territories and South Africa that it has been estimated that between 1911-1956 some 262,000 Basotho were permanently absorbed into South Africa (Leistner, 1967, p. 4).

Prior to mid-1960s, unrecruited Africans from Botswana, Lesotho and Swaziland seeking work in South Africa either found their own way, obtaining necessary documentation after they found employment, or registered with a District Labour Office in order to obtain a "pass" to seek employment. Also, those who recruited Africans from these countries were not legally required to repatriate their recruits after the completion of their contract. As a result, many Africans from Botswana, Lesotho and Swaziland used the mines as an avenue to employment in the higher paying industrial and tertiary sectors.

In 1958, probably as a result of the realisation by the Nationalist Party that the British Labour Party would not allow the incorporation of Botswana, Lesotho and Swaziland into South Africa as originally planned, Africans from these countries were declared prohibited immigrants. The Bantu Laws Amendment Act No. 76 of 1963 prohibited Africans from Botswana, Lesotho and Swaziland from entering South Africa except for work in specified industries - essentially mining and agriculture. The Aliens Control Act No. 30 of 1963 made it an offence for any such citizen to enter South Africa without a travel document issued by his own country, which meant that they could no longer obtain South African travel documents. (The deadline for the issuance of passport was, however, extended to 1966). In addition to this legislation, as of 1963 employers entering service contracts with Africans from Botswana, Lesotho and Swaziland had to undertake their repatriation.

Thus, after 1963-66 entry of Africans from Botswana, Lesotho and Swaziland into South Africa was severely circumscribed. This is not to argue that much "clandestine migration" did not take place after this date. Yet, the effect of this legislation has been to reduce considerably the level of migration, to alter its sex composition and to narrow its industrial diversity.

The South African Census of 1960 estimated the number of Africans from Botswana, Lesotho and Swaziland residing in South Africa at 295,100 (Table 6). This amounted to approximately 20 per cent of the estimated combined population of Botswana, Lesotho and Swaziland in 1960. In its report the Froneman Committee claimed that 451,000 Africans from these countries were in South Africa in 1960.7 Thus, based on the Froneman Committee's estimate, the percentage of the population from Botswana, Lesotho and Swaziland residing in South Africa in 1960 would have been 28 per cent. In 1970 it was estimated that 219,000 Africans from these countries were in South Africa (Table 6). As percentage of the combined 1970 population of the three countries, this amounted to about 11 per cent. If one were to presume that the same proportion of the combined workforce which migrated to South Africa in 1960 felt compelled and were free to migrate in 1970, then (based on the more believable Froneman Committee's estimates of foreign Africans in South Africa in 1960) the numbers
of migrants enumerated in 1970 would have been 584,000. It seems fair to say that, without immigration restrictions, and given the progressively deteriorating rural conditions in Botswana, Swaziland and especially Lesotho over this time, the number of citizens of those countries which would have chosen migration would have certainly been at least 584,000, and probably much greater.

Inspection of changes in Lesotho's rate of population growth between various censuses is also revealing in this regard. Between 1936-1956 population growth in Lesotho averaged 0.7 per cent per annum. Between 1956-66 the average annual rate of growth was 2.9 per cent (IBRD, 1975). Although the usual caveat applies with regard to population data, the difference between these two growth rates is quite considerable. It can be deduced from this difference that between 1936-1956 considerable numbers of Basotho were permanently absorbed in South Africa. The large increase in population growth between 1956-1966 must in part be explained by 1952-1963 South African "pass" legislation which made it increasingly difficult for Africans from Botswana, Lesotho and Swaziland to settle in South Africa.

It would appear that the radical change in the status of Africans from Botswana, Lesotho and Swaziland as regards employment in South Africa, and corresponding legislation controlling their movements, is at least partly responsible for the reduced numbers from those countries able to obtain employment in South Africa, as indicated in Table 5.

Malawi and Mozambique Pre-1974 Migration: Business as Usual

Citizens of Malawi and Mozambique have always been "prohibited immigrants". Consequently, they have never been permitted to seek work in South Africa on their own initiative. Employers of labour from these countries have always had to repatriate contracted workers upon completion of their contract, unless that contract was extended and the extension conformed to legislation regarding maximum length of stay.

In 1936 an agreement was concluded between the Government of Nyasaland (Malawi) and the Witwatersrand Native Labour Association (WNLA) under which WNLA was given permission to recruit labour for work in South African mines. At that time no other South African industry was allowed to recruit in Malawi. Initially, the agreement provided for an annual quota of 8,000 recruits on one year contracts with an option to extend for six months. In 1946 the annual quota was increased to 12,750 and continued to rise over time. By 1973 over 120,000 Malawians were employed on the gold mines.

Interestingly, whereas Africans from Botswana, Lesotho and Swaziland were after 1963 relegated to employment in "specified industries", namely agriculture and mining, Malawians were in 1967 given the opportunity to enter a wide spectrum of occupations. The 1967 inter-governmental agreement aimed at increasing employment of Malawians in diverse sectors of the South African economy, provided that a shortage of indigenous labour existed. Whereas in 1960 virtually no Malawians found employment outside the mining industry, by 1970, 23,200 Malawians, comprising 22 per cent of the number of Malawians working in South Africa, found employment outside mining. Yet, because of the supplementary character of foreign migrant labour, and given increasing unemployment in South Africa, this number has almost certainly declined since 1970.
In the year of its formation, 1902, WNLA managed to obtain a monopoly from the Portuguese authorities for recruiting Mozambican Africans. The 1902 agreement was revised on numerous occasions and culminated in the Mozambique Convention of 1928. This latter agreement specified a minimum level of recruitment of 65,000 per year and a maximum level of 100,000. In 1964 another agreement was concluded with the Portuguese authorities with regard to the recruitment of Mozambican labour by WNLA. WNLA still remained the only South African company which could recruit in Mozambique (Breytenbach, 1972).

Prior to 1956 recruitment of Mozambican labour was prohibited except for mines affiliated with the Chamber. However, as of 1 July 1956, any South African employer (except employers in the Western Cape, manufacturing and domestic services) could use Mozambican labour but could not itself recruit that labour. Rather, recruitment was undertaken by agents in Mozambique on behalf of South African employers. Although after 1956 the employment of Mozambican labour outside gold-mining became legal, it was not to have a positive impact on occupational diversity. Between 1960 and 1970 the number of Mozambicans employed outside of gold-mining declined in both relative and absolute terms. In reality, the 1956 legislation only affected agricultural enterprises in border areas and legalised what had been going on for decades.

The legislation emanating from the foreign African paranoia reflected in the Froncman Committee's recommendations has undoubtedly caused a severe short-run reduction in the current welfare of the labour-exporting countries. That reduction continues today and derives from two interrelated factors. First, with the 1963-66 legislation, the South African authorities became serious about the "supplementary" nature of foreign African labour. Secondly, unemployment among South African blacks has been on the rise. Years of frequent sectoral labour shortages in South Africa are giving way to labour surpluses. As the Government accords a preference to South Africans, the implications of this growing labour surplus within South Africa for the labour-exporting countries is obvious.

(2) CHANGING CONDITIONS IN THE SOUTH AFRICAN LABOUR MARKET

In the preceding discussion the "supplementary" nature of foreign Africans was emphasised. In theory, domestic South African blacks get first preference for employment. Excepting the Chamber of Mines, any firm wanting to employ foreign blacks has to seek approval of the relevant government labour office in South Africa. That office has to be satisfied that no South African workers are available before it will issue a "no objection" notice. Under these legal provisions it becomes apparent that conditions in the South African black labour market have a bearing on the volume and characteristics of foreign African migrants. Let us now review these conditions.

Cyclical Unemployment in South Africa and the Demand for Foreign Labour

South Africa has been suffering from a recession since 1974. Severe balance of payments difficulties, due in part to politically motivated capital flight, and continuing inflation have been met by conservative monetary and fiscal policy. These constraints have exacerbated the employment situation.

Under these circumstances we could expect a rise in the rate of unemployment amongst South African blacks. Both official statistics on unemployment and other independent studies of African unemployment present strong evidence of a rising rate of African
unemployment in the last few years. (The official estimates in the South African Bulletin of Statistics undoubtedly understate the level of black unemployment. For recent attempts trying to estimate more accurately South African unemployment, see Simkins, 1976; Knight, 1976; and Loots, 1976).

To an extent, the recession and its concomitant black unemployment must be viewed as one factor underlying the decline in the volume of foreign migration. Moreover, given the mining companies are not subject to the "no objection" procedures of the labour bureaux, it becomes evident that this fact, combined with the recession's implications for foreign migration, to a large extent explains the recent narrowing of the occupational distribution of foreign migrants.

**Structural Unemployment in South Africa and the Demand for Foreign Labour**

It could be argued that if the African unemployment rate were brought down to its past average, as a result of a cyclical upswing, then demand for foreign African workers would be revived. According to this line of reasoning, not only would the volume of employment of foreign Africans increase, but its occupational distribution and sex composition could begin to reflect the migration patterns prevailing in the 1960s.

Such an argument implicitly assumes that rising African unemployment in South Africa during the 1970s is essentially short-run cyclical unemployment. Yet, it has been suggested that the unemployment rate in South Africa has shown a secular rise. A proportion of the rise in the unemployment rate over recent years can be attributed to growing structural unemployment which will not be easily mitigated by short-run expansionary forces (see Simkins, 1976; Legassick, 1974; and more recently Clarke, 1977b).

Structural unemployment and underemployment have manifold sources. First, and perhaps foremost, past legislation restricting African agricultural holdings to "homeland" areas and the removal of many Africans from "white" areas to the "homelands" in the 1960s (cf. Desmond, 1971) has greatly increased population/land and labour/land ratios in the "homelands". In view of the lack of development of "homeland" agriculture (which is itself a result of complex socio-politico-economic factors), the rising labour/land ratio has reduced agricultural productivity per capita and has resulted in increases in the proportion of the African labour force finding it necessary to migrate in search of wage employment. This is a standard argument and is undoubtedly quite valid. Secondly, and something which appears to have been disregarded in most studies related to this question, African conventional subsistence levels have risen considerably over the last few decades, beyond levels necessary for basic physiological requirements essential to "reproduce the labour supply". Africans have come to expect higher standards of living. But given the manifest inability of the "homelands" agriculture to develop, this has necessitated a higher rate of migration. Thirdly, rising wage rates in all sectors of the South African economy have increased the monetary rewards of migration while concomitantly making owner-agriculture labour relatively less attractive. Such changes in the relative returns to time spent in wage employment and time spent in agriculture have undoubtedly exerted an upward pressure on the supply of labour wanting to take up wage employment.

The effect of these structural changes in the African labour market is to make the supply of African labour increase at a rate which exceeds the natural rate of increase in the labour supply.
There are also structural factors which have come to bear on the demand side of the labour market which have operated in such a way as to reduce the rate of growth or demand for African labour. Essentially, these have resulted in increases in the capital/African labour ratio. Firstly, the migrant labour system has been inimical to the formation of the many types of skills needed in modern industry. The system has given rise to a relatively high rate of turnover of African employees and extended periods of voluntary unemployment. In addition, the industrial colour bar has served to exclude Africans from access to many skilled occupations. This contrived shortage of skilled labour has impeded the development of skilled labour-intensive industries (e.g. machine tools manufacturing, and engineering and fabrication) which could have augmented growth in labour demand. Secondly, the imperatives of modern manufacturing are such as to encourage the adoption of technologies and processes which maintain uniform quality of product. Often, this is most easily achieved by mechanised production processes as opposed to labour-intensive capital-saving processes. Thirdly, South African industry has had to rely on imported technology purchased from countries whose factor endowments dictate relatively capital-intensive production processes. This reliance must, to some extent, be a result of South Africa's failure to develop its own alternative techniques for the reasons outlined above which have prevented the development of skilled labour-intensive industries.

Thus, there has been and continues to be a combination of factors working on the demand and supply side of the labour market to generate growing structural unemployment in South Africa. Given the supplementary nature of foreign African labour, the declining demand for this labour in South Africa and the changes in its occupational distribution becomes understandable. Further, it becomes highly problematical as to whether future growth in labour demand will ever be sufficient to reverse the trend of decreasing foreign labour demand.

(3) MALAWI AND MOZAMBIQUE SUPPLY REDUCTIONS SINCE 1974

We have been concentrating on developments internal to South Africa which have resulted in reductions in the demand for foreign African labour. However, there have been considerable changes on the supply side of the foreign African labour market which have been imposed on South Africa. These changes have altered both the volume and sources of foreign labour supplies. This has particularly affected the gold-mining industry (see Table 8).

In April 1974 a plane carrying Malawian recruits for the gold mines crashed in Francistown, Botswana, killing 74 recruits. President Banda of Malawi reacted by prohibiting further South African recruitment of Malawian labour. In the course of the next two years, practically all Malawians employed by the South African mines returned to their country.

The sudden loss of a labour reserve which supplied the gold-mining industry with 25 per cent of its African labour input had significant repercussions. At 31 December 1973, the gold-mining industry was employing 422,181 African workers. Such numbers permitted the industry to work at maximum capacity and, given the cost structure of the industry, most profitably. However, one year later the industry employed 364,658 African workers. Only by pulling substantial numbers off development work and putting them on to current production was the industry saved from very serious disruption and significant financial losses. Also, a significant increase in the price of gold of 65 per cent in 1974 certainly helped compensate for the cost increases associated with decreased labour inputs. If the price
of gold had remained at its 1973 level, then working profit per ton of ore milled would have been R7.70 in 1974, compared with a 1973 working profit per ton of R13.42. However, the large increase in gold prices in 1974 permitted working profit per ton in that year to be recorded at R21.52 (South African Chamber of Mines, Annual Report, 1974).

The point to be emphasised is the significant contribution which Malawian labour made to the gold-mining industry by virtue of their large numbers. It took the gold-mining industry at least two years to close the supply gap created by the withdrawal of Malawian workers.

The volume and origin of foreign labour in South Africa was similarly affected when, in 1974, Portugal relinquished Mozambique to the strongly socialist-oriented Frelimo. The export of labour to apartheid South Africa has been viewed by Frelimo as inconsistent with self-reliant socialist development. Actions taken by the new Mozambique Government and the turmoil following defeat of the Portuguese have served to reduce the supply of labour emanating from that country to South Africa. As can be seen from Table 8, after a time lag, there was a radical drop in the number of Mozambicans contracted to work on the gold mines. However, part of this reduction is a reflection of a decreased demand by the Chamber of Mines for Mozambique labour. It seems readily apparent from the Chamber's viewpoint that it would not want to rely heavily on such an insecure source of labour. Also contributing to the Chamber's reduced demand for Mozambique labour was the South African Government's decision in 1977 to make the individual mines (rather than the pooled resources of the Central Bank) responsible for the gold to be transferred to Maputo to cover the deferred pay of Mozambican miners. This became an obvious disincentive for employing Mozambicans until the special gold agreement was ended in 1977.

(d) THE IMPLICATIONS OF "INTERNALISATION" FOR FOREIGN SUPPLIERS

(1) BACKGROUND TO "INTERNALISATION"

The "supply side" actions by Malawi and the newly introduced uncertainty surrounding Mozambican supplies forced the Chamber of Mines to adopt a policy of "internalisation", i.e. increasingly to draw its labour supplies from within South Africa. Admittedly, there had been a lengthy debate in the industry over internalisation prior to the 1974 changes. In the late 1960s the "rich" gold-mining groups, in particular Anglo-American, were arguing for internalisation and the black wage increases necessary to effect such a policy. The main thrust of their argument was that the industry was making itself strategically vulnerable by relying increasingly upon foreign labour supplies. Of course, the reversal of this trend would require substantial African wage rises, given the very large differences between wage levels in gold-mining and other sectors. The mines with relatively low grade ore hotly opposed wage increases because they saw their financial viability threatened. However, the debate was to be resolved for the Chamber by a set of events such that one prone to belief in divine intervention could but conclude that the gods were on the side of the gold-mining industry.

Malawi's action created a considerable supply gap which was not to be filled until well into 1976. The political uncertainty surrounding Mozambique placed great doubts in the Chamber's collective mind as to the reliability of future supplies from that country. Thus, the industry was virtually forced to internalise. The policy instrument it wielded to effect
internalisation was, of course, wage increases (see Table 3). Nominal African earnings (annual averages) quadrupled and real earnings trebled since 1972. What permitted the industry to impose upon itself such large increases in production costs which were so strenuously opposed several years earlier? Quite simply incredibly large rises in the price of gold (see Table 9). Since 1972 the price per fine ounce has climbed from less than R40 to well over R100 in the middle of the decade and still higher subsequently. This pushed up profits per African employee from about R1,000 at the beginning of the 1970s to R4,000 in later years, even taking into account the large rises in African wages over the same period (see Stahl and Böhning, 1979, p. 48).

Interestingly, the wage increases up to 1974 were associated with virtually no increase in the number of South African blacks taking up mine employment. Reflecting on this fact in the light of the Malawi-Mozambique supply reductions, the Chamber must have been in a quandary. Again, however, events were to occur which were to "bail out" the gold-mining industry. The continuing recession in South Africa was beginning to manifest itself in growing black unemployment. This unemployment was beginning to do for the gold-mining industry what the 1972-4 wage increase could not - increase the number of South African blacks taking up the least desired occupation in South Africa, gold-mining. The situation continues in spite of the very much smaller increase in wages since 1976 (Table 3). According to the South African Star "the mining industry is experiencing 'an almost embarrassing flood' of black work-seekers owing to rising unemployment" (18 March 1978). The paper reports the Chamber as saying that "It is obvious that this oversupply of labour can mainly be attributed to the current economic recession in South Africa which has led to growing unemployment and a shortage of job opportunities in most sectors".

(2) "INTERNALISATION" AND THE CHANGING ORIGIN OF FOREIGN LABOUR

The impact of the Chamber's internalisation policy on the volume and origin of foreign African labour employed in South Africa reflects the forced character of that internalisation process. As can be seen from Table 8, the volume of foreign African labour employed by affiliates of the Chamber declined sharply over the period 1973-77 - from 335,900 to 203,500. Predictably, the countries accounting for the brunt of this reduction were Malawi and Mozambique. Between June 1974 and December 1975 the decline in the number of Malawians was approximately 110,000. Fortunately, for the Chamber, the decline in the number of Mozambican workers did not coincide with the Malawian withdrawal; otherwise, the supply gap indicated by the fall in total employment from 422,200 in December 1973 to 363,500 one year later would have been even greater, adversely affecting profit rates in the industry. In fact, the reduction in numbers from Mozambique did not commence until 1976. Whereas at 31 December 1975 there were 118,030 Mozambicans employed in the mines, at 30 June 1976 they numbered 72,315, and by the end of 1976 the number had declined to 48,565.

The decline in labour supplies from Malawi and Mozambique have been offset, to some extent, by increased labour exports from Botswana, Lesotho and Swaziland. In 1973 these countries supplied a combined total of 108,500 workers. By April 1977 that figure stood at 136,600. Another source of labour to fill the supply gap created by Malawi and Mozambique has been Southern Rhodesia/Zimbabwe. By agreement, prior to 1975 the Chamber was not allowed to recruit labour from Southern Rhodesia/Zimbabwe. In 1975 this position was reversed leading to a rapid increase in the number of Africans from that country (cf. Clarke, 1978).
It should be noted that in 1977 the Chamber arrived at an agreement with the Malawian Government which permits it once again to obtain labour supplies from Malawi (Bluming, 1977). It was reported that at the end of 1977 some 17,600 men from Malawi were employed in the mines. It is expected that this figure will stabilise for some time at around 20,000 (Clarke, 1977a, p.24).

(3) LIKELY FUTURE DEVELOPMENTS WITH REGARD TO "INTERNALISATION"

Given the gold-mining industry is at present by far the largest employer of foreign African labour, the current welfare of the labour-exporting countries is inextricably bound up with the internalisation policy of the Chamber of Mines. Two questions which loom large are how far does the Chamber intend to pursue internalisation and over what length of time?

The Chamber is on record as assigning itself a 50 per cent internalisation target (Clarke, 1977a, p. 24). This target was decided upon early in 1976 and was realised by the first quarter of 1977. On year later, about 53 per cent of the 421,000 Africans employed on the mines were from within South Africa (including the Transkei and Sophiatown) (Mining Survey: Supplement to [South African], Financial Mail, 28 July 1978). At the same time it was claimed that the mines were turning away "considerable numbers" of black work-seekers (The Star, 18 March 1978).

If the Chamber is in fact turning away "fit" South African blacks, then several things are implied which bear upon future internalisation. First, the Chamber must be turning away South African "novices" in preference for experienced foreign miners. Hence, it might be argued that the Chamber has internalised as far as it intends for the short-run. That is to say, it no longer intends to replace experienced foreign miners with novice South Africans. This strategy makes economic sense in light of the dislocations and inefficiencies suffered by the industry during rapid internalisation between 1975 and 1976. During this period the turnover of African labour rose dramatically (see Table 10). Specifically, this was a reflection of shorter contracts, many more broken contracts and greater numbers of medical rejects. In general, it was a reflection of a less stable labour supply which manifested itself in less efficiency and hence greater costs. Thus, for the next few years at least, the present level of demand for foreign African labour is likely to remain steady.

Second, given the oversupply of novices in South Africa, it is most likely that the Chamber, as stated, will give them preference over foreign novices. Hence, over time, as experienced foreign mineworkers retire they will be replaced by South African novices. Without an exceptionally strong and extended economic recovery in South Africa, it is unlikely that the level of demand for foreign labour will ever return to its pre-internalisation level.

In addition to substituting local for foreign labour over time, the gold-mining industry is attempting to mechanise production, thus reducing its overall labour demand. According to the 1975 President of the Chamber of Mines:

"A Programme of research and development with emphasis on the mechanisation of gold mining was begun in July 1974, a few months after the air accident (in which 74 Malawian mineworkers were killed) when it began to look as if this event might cut off Malawi as a source of labour, and at a time when events in Portugal and Mozambique made it clear that in the long term the industry might not be able to rely so heavily on foreign labour. Future expansion will require an increased labour force and the Chamber of Mines is doing all in its power to develop new recruitment areas and to safeguard the regularity and volume of labour supply from existing recruitment areas. However, it is clear that a reduction in labour dependency will be in the best interests of the gold-mining industry". (Schuman, 1975, p. 4).
If the industry is successful in mechanising aspects of the production process, labour will most likely be displaced. One might speculate that foreign workers would most likely be the first to find that they cannot obtain further contracts on the gold mines. This in spite of the fact that the greater skill requirements that tend to go with mechanisation (Bardill et al., 1977) might favour experienced foreign miners.

Finally, these developments must be viewed in the light of a projected incipient decline in gold production beginning in 1980. It is estimated that employment in the industry will decline to 148,000 or less by the year 2000 (Bromberger, 1979). Estimates of future employment in other sectors of the mining industry leave little hope that their expansion would be sufficient to maintain even current levels of foreign African labour demand.

Evidence also indicates that commercial agriculture, once a major employer of foreign African labour, reached its employment peak at the end of the 1960s. As a result of mechanisation and other changes, employment in that industry will decline. It is possible, but not likely, that opportunities for foreign migrants would spring up elsewhere in the meantime.

Thus, the prospects for increased labour exports are dismal, and it is most likely that demand for foreign labour will decline. However, some countries may be subjected to greater reductions than others. The distribution of the industry's demand across supplier states is not easily clarified. It will be influenced by political factors as well as variations in recruitment costs.

(e) CONCLUSIONS

We have attempted to explain recent substantive changes in international migration patterns within southern Africa and to explore the implication of those changes for future migration. Abstracting from the Malawi and Mozambique supply-side actions, it is abundantly evident that recent developments in South Africa have been responsible for the large reductions in foreign labour demand in South Africa, as well as substantial changes in the sex composition of migration and its occupational diversity. These changes can be attributed to: (i) growing cyclical and structural unemployment in South Africa, and (ii) legislative changes which have increasingly and effectively relegated foreign blacks to the position of being a labour supply supplementary to the South African black labour force. Given the structural nature of an increasing amount of South African black unemployment and declining future employment prospects in primary industries, it is unlikely that demand for foreign African labour will return to past levels. In fact, assuming that the supplier states can do nothing to control future demand for their labour, that demand will most likely continue to subside.

What are the implications of these past and likely future changes in the South African labour market for the supplier states? The governments of those supplier states have little choice but to become serious with respect to designing and implementing development strategies which will generate greatly increased employment opportunities, both urban and rural. Total commitment to comprehensive development has become imperative.

There is much which can be done to generate local employment opportunities in the present supplier states. Agriculture can be diversified toward more labour-intensive crops of high nutritional value with large yields per hectare. Crops can be introduced which have forward linkages in terms of processing. Animal products such as wool, mohair and hides can be locally processed and transformed into final consumer products. For example, the Botswana and Lesotho weavers produce beautiful mohair and wool carpets and weavings, and yet import all of their
wool and mohair inputs from South Africa. Although Botswana slaughters hundreds of thousands of cattle each year, no factory exists to process the valuable hides. Leather for Botswana's growing leather handicrafts industry is imported from South Africa. Much labour time can be productively employed in infrastructural projects in towns and villages. In Botswana much land is unutilised and virtually all is under-utilised. Many workers could be productively employed clearing thorn-bush and other scrub from potentially productive land. Hills in Lesotho's village areas, which are presently deemed uncultivable for the purpose of growing traditional crops, could be terraced with the many rocks now combined with productive soil and the terraces could undoubtedly support vine crops, fruit trees or even olive trees whose oil could be locally processed. The many creeks and small and large rivers in Lesotho could be dammed to provide reserve water for irrigation of vines and fruit trees in periods of drought. Fish could be planted and harvested in such reservoirs.

Employing imagination and initiative there are innumerable small and large projects which could pay for themselves and employ much labour in their creation and maintenance. But this is not to say the governments should be the national employer of tens of thousands of wage labourers working on projects which the workers cannot envisage as being of longer-run benefit to themselves. Plans and projects must be decided upon at the village level. People must see that improvements in their living conditions are a direct result of decisions which they individually and collectively make. The Governments must assume the role of a provider of information as to projects which can be done and how they can be done. Yet, information should flow both ways. The village should be able to tell the Government what it thinks needs to be done and how it should be done.

Much can be achieved within the constraint of existing institutional structures. Yet, more can be achieved where these structures can be improved. Land tenure systems need to become more flexible to permit communal development of certain types of crops, e.g. fruit trees and vine products, with future individual rewards based on current investments of labour time and future labour inputs into cultivation.

The functional allocation of currently communal grazing lands, as well as the maximum number of cattle per household, should be decided by the village. Individuals should be permitted to withhold their personal land from communal winter grazing if they intend to crop it. Individuals should be allowed to fence their land if the household undertaking the fencing reduces its cattle holding to compensate for the loss of communal winter grazing.

In short, with the loss of the labour-export "safety valve", the governments of present labour-exporting countries must become effectively committed to the implementation of a development strategy aimed at satisfying the basic needs of their citizens. In particular this will mean pursuing a development strategy which will benefit the broad masses. That, in turn, implies meaningful broadly based rural development.
III. NOTES

1. In addition to absorbing huge quantities of labour, the industry also attracted massive amounts of capital into South Africa. Foreign investment mainly stemmed from Britain, with some coming also from France and Germany. From the period 1887-1932, the industry absorbed over R296,000,000 (Frankel, 1967, pp. 88-9). The importance of foreign capital in the development of the mining industry is highlighted by the fact that, over the same period, roughly 75 per cent of the dividends paid by the gold-mining industry went to overseas investors.

2. Ordinarily, to attract more workers a monopsonist must pay a higher wage. But the Chamber could now use the additional choice variable of recruitment area size in its quest for the optimum amount of labour. Under normal circumstances it would have had to increase wages continually in order to attract workers at increasing distances from its location. But by incurring the expense of the workers' travel, the Chamber could exercise its power with respect to price discrimination. Workers residing farther away could receive the same wage as those nearer the gold mines but, implicitly, would receive a higher subsidy to offset the expense of travelling farther.

3. It should be noted that the failure of the reserves to develop agriculturally is not purely a reflection of increasing population pressures in combination with customary land tenure systems. One of the principal reasons for their failure to develop was their inability to compete with heavily subsidised white farmers. Lesotho, a long-term exporter of labour to the mines, also suffered from the subsidised development of white agriculture. Before the aided development of white agriculture, that country was a net exporter of grain. With a loss of its comparative advantage, but a continued need for cash, it had to increasingly rely on migrant labour. In Swaziland and Botswana the virtual confiscation of prime agricultural land also reduced the ability of the peasantry to satisfy conventional subsistence requirements through agricultural production.

4. For the purpose of simplification, data on migration from Botswana, Lesotho and Swaziland has been combined. As the story unfolds it will become evident that treating them jointly or separately will not alter the analysis or conclusion.

5. As of 30 June 1964, total employment of foreign Africans was 497,000. Hence, the implicit assumption is that employment growth of foreign Africans from 1960-1964 was around 5 per cent per year. Given the rapid expansion of the South African economy over this period and the fact that controls over Botswana, Lesotho and Swaziland Africans were not really consolidated until 1965-66, this would appear to be a defensible estimate.

6. After 1952 foreign Africans, as domestic Africans, found their movement into employment in urban areas circumscribed by strict enforcement of urban influx control legislation. After this time labour bureaux were set up and Africans from Botswana, Lesotho and Swaziland, as well as domestic Africans, had to obtain permits from District or Local Labour Bureaux to seek work in urban or proclaimed areas. The legislation giving rise to further "influx control" was the Bantu (Abolition of Passes and Co-ordination of Documents) Act 67 of 1952.

7. The Froneman Committee believed the discrepancy between its estimates and those of the Census was due to foreign Africans concealing their true origins during the 1960 Census. The Committee pointed out that urban influx control regulations became applicable to Africans from the High Commission Territories for the first time after 1952 and that this could have prompted
many foreign Africans to conceal their identity out of fear that the system would be extended to rural areas". (See Owen, 1964, p.5).

8 Agreement between the Government of Malawi and South Africa Relating to the Employment and Documentation of Malawian Nationals in South Africa, 10 May 1967

This agreement came into effect on 1 October 1967. (Breytenbach, 1972).

9 Indeed, the General Manager of the Chamber's recruitment arms revealed in March 1977 that: "We (are) filling all vacancies for novices with South Africans and Transkeians while restricting foreign recruitment to the experienced men who have served the industry loyally in the past" (The Star, 10 March 1977). The Financial Mail reported "bad news for foreign miners" on 10 June 1977 and, based on an interview with the General Manager of the Mines Labour Organisations (MLO) and other MLO personnel, also related that "novices are no longer being recruited from neighbouring countries".
Table 1: Average numbers employed in gold mines.
European and African, 1889-1971

| Year | Europeans (000s) | Africans (000s) | Foreign Africans as % of all Africans
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<tr>
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<tbody>
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<td>-</td>
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<tr>
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<td>38</td>
<td>361</td>
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</tr>
<tr>
<td>1977</td>
<td>-</td>
<td>422</td>
<td>49</td>
</tr>
</tbody>
</table>

1 End-of-year foreigners in total number employed at end of year.

Sources: Mine Labour Organisations (WNLA), Annual Reports (various); Mine Labour Organisations (NRC), Annual Reports (various).
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<tbody>
<tr>
<td>South Africa</td>
<td>22.80</td>
<td>40.32</td>
<td>44.32</td>
<td>38.69</td>
<td>41.22</td>
<td>49.80</td>
<td>52.18</td>
<td>48.17</td>
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<tr>
<td>Tropics¹</td>
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<td>1.66</td>
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<td>0.27</td>
<td>0.17</td>
<td>0.14</td>
<td>1.07</td>
<td>7.29</td>
<td>10.60</td>
<td>13.45</td>
<td>17.87</td>
<td>21.54</td>
<td>14.68</td>
<td>27.91</td>
<td>9.35</td>
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</tbody>
</table>

¹ Africans recruited from North of latitude 22° South, chiefly from Malawi (in 1976, 17,300 recruits from Zimbabwe).

Sources: Mine Labour Organisations (WNLA), Annual Reports (various); Mine Labour Organisations (NRC), Annual Reports (various).

Note: Discrepancies between total numbers employed in Tables 1, 2 and 3 (a) reflect different times during the year of enumeration; and (b) figures in this Table also include Africans employed by coal mines affiliated with the Chamber of Mines.
Table 3: Average annual earnings, current and real, and Africans employed in the gold-mining industry (1881-1966 = base year 1938 = 100; 1969-1977 = base April 1970 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Current (Rand)</th>
<th>Real earnings (Rand)</th>
<th>Number employed (000s)</th>
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<tbody>
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<td>72</td>
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</tr>
<tr>
<td>1911</td>
<td>60</td>
<td>72</td>
<td>190</td>
</tr>
<tr>
<td>1916</td>
<td>65</td>
<td>70</td>
<td>294</td>
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<td>1921</td>
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<tr>
<td>1977</td>
<td>1,140</td>
<td>612</td>
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</tbody>
</table>

1 First quarter.

Sources: Mine Labour Organisations (WNLA), Annual Reports (various); Mine Labour Organisations (NRC), Annual Reports (various); South African Statistical Yearbook and Bulletin of Statistics (for consumer price index).
Table 4: Average annual African earnings by sector, 1935-1973 (Rand per annum)\(^1\)

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<tbody>
<tr>
<td>Manufacturing</td>
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<td>667</td>
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<td>611</td>
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<tr>
<td>Agriculture</td>
<td>-</td>
<td>-</td>
<td>70</td>
<td>81</td>
<td>119</td>
<td>-</td>
</tr>
</tbody>
</table>

\(^1\) Cash earnings only. Payment in kind is an important source of earnings in both mining and agriculture.

\(^2\) Industries selected were the largest employers of African labour outside agriculture. Average wage calculated by dividing total African wage bill in each industry by the corresponding number employed.

Figures for 1964 are from Leistner but are corrected for his understatement of mining employment.

1977 country figures are an estimate while the aggregate figure is official. Country figures for that year were obtained by adding numbers employed in gold-mining by country to estimate of non gold-mining employment by country. The latter figures were obtained by assigning a non gold-mining employment estimate to each country according to each's proportion of total foreign African employment outside gold-mining in 1970.


Table 6: Volume and sex composition of migrant population by country of origin, 1960 and 1970 (in thousands)

<table>
<thead>
<tr>
<th>Country</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Botswana, Lesotho and Swaailand</td>
<td>203.6</td>
<td>91.4</td>
</tr>
<tr>
<td>Malawi</td>
<td>60.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Mozambique</td>
<td>157.0</td>
<td>5.2</td>
</tr>
<tr>
<td>Southern Rhodesia/Zimbabwe</td>
<td>31.5</td>
<td>2.2</td>
</tr>
<tr>
<td>Others</td>
<td>30.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>483.9</td>
<td>102.4</td>
</tr>
<tr>
<td>Females as % of males</td>
<td>21.16%</td>
<td></td>
</tr>
</tbody>
</table>

1 Including Zambia in 1960.


<table>
<thead>
<tr>
<th>Sector</th>
<th>1964</th>
<th>1970 (^1)</th>
<th>1977 (30 June)</th>
<th>1978 (30 June)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>281</td>
<td>352</td>
<td>288</td>
<td>258</td>
</tr>
<tr>
<td>- affiliates to Chamber of Mines</td>
<td>231</td>
<td>267</td>
<td>208</td>
<td>-</td>
</tr>
<tr>
<td>- non-affiliated mines and quarries</td>
<td>50</td>
<td>85</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>Agriculture</td>
<td>144</td>
<td>45</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>23</td>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Construction</td>
<td>4</td>
<td>6</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Commerce</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Government service</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Domestic service</td>
<td>8</td>
<td>21</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Annual totals</td>
<td>484</td>
<td>455</td>
<td>357</td>
<td>327</td>
</tr>
<tr>
<td>Mining as % of total</td>
<td>58%</td>
<td>77%</td>
<td>81%</td>
<td>79%</td>
</tr>
<tr>
<td>Percentage change in non-mining since 1964</td>
<td>-49%</td>
<td>-66%</td>
<td>-66%</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) The discrepancy in Tables 5 and 7 between the 1970 data is accounted for by foreign Africans listed in the 1970 census as "not economically active", "not specified" or "unemployed".

Table 8: Sources of African labour, by country of origin, employed at end of each year by affiliates of the Chamber of Mines (in thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>19.0</td>
<td>16.0</td>
<td>15.6</td>
<td>14.8</td>
<td>16.3</td>
<td>16.0</td>
<td>17.5</td>
<td>16.8</td>
<td>14.7</td>
<td>16.6</td>
<td>15.5</td>
<td>19.7</td>
<td>21.0</td>
</tr>
<tr>
<td>Lesotho</td>
<td>64.3</td>
<td>59.7</td>
<td>65.1</td>
<td>65.0</td>
<td>71.1</td>
<td>68.7</td>
<td>78.5</td>
<td>87.2</td>
<td>78.3</td>
<td>85.5</td>
<td>96.4</td>
<td>103.2</td>
<td>97.5</td>
</tr>
<tr>
<td>Swaziland</td>
<td>4.3</td>
<td>3.8</td>
<td>4.5</td>
<td>5.0</td>
<td>5.4</td>
<td>4.8</td>
<td>4.3</td>
<td>4.5</td>
<td>5.5</td>
<td>7.2</td>
<td>8.6</td>
<td>8.1</td>
<td>9.3</td>
</tr>
<tr>
<td>Malawi</td>
<td>55.3</td>
<td>56.9</td>
<td>61.7</td>
<td>69.9</td>
<td>98.2</td>
<td>107.2</td>
<td>129.2</td>
<td>128.0</td>
<td>73.1</td>
<td>8.5</td>
<td>6.9</td>
<td>14.2</td>
<td>21.6</td>
</tr>
<tr>
<td>Mozambique</td>
<td>109.0</td>
<td>105.7</td>
<td>105.8</td>
<td>99.8</td>
<td>113.3</td>
<td>102.4</td>
<td>97.7</td>
<td>99.4</td>
<td>101.8</td>
<td>118.0</td>
<td>48.6</td>
<td>42.4</td>
<td>33.9</td>
</tr>
<tr>
<td>Southern Rhodesia/Zimbabwe</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.0</td>
<td>25.9</td>
<td>21.4</td>
</tr>
<tr>
<td>Total foreign</td>
<td>252.8</td>
<td>242.2</td>
<td>252.7</td>
<td>254.6</td>
<td>304.2</td>
<td>299.7</td>
<td>327.2</td>
<td>335.9</td>
<td>273.4</td>
<td>242.9</td>
<td>202.8</td>
<td>202.0</td>
<td>196.3</td>
</tr>
<tr>
<td>South Africa</td>
<td>130.5</td>
<td>126.2</td>
<td>129.9</td>
<td>116.5</td>
<td>96.9</td>
<td>86.5</td>
<td>87.2</td>
<td>86.2</td>
<td>90.0</td>
<td>121.8</td>
<td>158.6</td>
<td>214.2</td>
<td>224.7</td>
</tr>
<tr>
<td>Overall total</td>
<td>383.3</td>
<td>368.4</td>
<td>382.6</td>
<td>371.1</td>
<td>401.1</td>
<td>386.2</td>
<td>414.3</td>
<td>422.2</td>
<td>363.5</td>
<td>364.7</td>
<td>361.3</td>
<td>422.2</td>
<td>421.0</td>
</tr>
</tbody>
</table>

1 Separate figures for Malawi and Zimbabwe not available for 1977. The figures are estimates.
2 End of first quarter.
3 Malawian figures include a relatively small number of people recruited North of 22° South from countries other than Malawi, perhaps 10 per cent on average.

Sources: Mine Labour Organisations (WNLA), Annual Reports (various).
### Table 9: Price of gold, 1970-1977

<table>
<thead>
<tr>
<th>Year</th>
<th>Rand/Fine Oz</th>
<th>Change in price over previous year (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>25.80</td>
<td>-4</td>
</tr>
<tr>
<td>1971</td>
<td>28.60</td>
<td>+11</td>
</tr>
<tr>
<td>1972</td>
<td>39.70</td>
<td>+39</td>
</tr>
<tr>
<td>1973</td>
<td>65.10</td>
<td>+64</td>
</tr>
<tr>
<td>1974</td>
<td>107.40</td>
<td>+65</td>
</tr>
<tr>
<td>1975</td>
<td>111.62</td>
<td>+4</td>
</tr>
<tr>
<td>1976</td>
<td>103.77</td>
<td>-7</td>
</tr>
<tr>
<td>1977</td>
<td>136.04</td>
<td>+31</td>
</tr>
</tbody>
</table>

1 Estimate based on first quarter reports of six gold-mining groups.

Source: South African Chamber of Mines, Annual Reports (various)

### Table 10: Total net wastage.1  Average number of Africans employed by members of the Chamber of Mines2 and net wastage as a proportion of average number employed 1971-1976

<table>
<thead>
<tr>
<th>Year</th>
<th>&quot;Net wastage&quot;</th>
<th>Average number employed</th>
<th>Wastage/employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>330,591</td>
<td>406,066</td>
<td>0.814</td>
</tr>
<tr>
<td>1972</td>
<td>337,862</td>
<td>411,192</td>
<td>0.822</td>
</tr>
<tr>
<td>1973</td>
<td>354,708</td>
<td>435,871</td>
<td>0.814</td>
</tr>
<tr>
<td>1974</td>
<td>387,170</td>
<td>414,232</td>
<td>0.935</td>
</tr>
<tr>
<td>1975</td>
<td>472,135</td>
<td>385,160</td>
<td>1.226</td>
</tr>
<tr>
<td>1976</td>
<td>562,036</td>
<td>409,134</td>
<td>1.374</td>
</tr>
<tr>
<td>1977</td>
<td>584,684</td>
<td>435,024</td>
<td>1.344</td>
</tr>
</tbody>
</table>

1 Net wastage is the sum of workers discharged after completion of contract, medical rejects, absconders, and those who died.

2 The number employed by the Chamber of Mines is slightly larger than the number employed by the gold-mining companies who are its members.

Source: Mine Labour Organisations (MNLA), Annual Reports (various).
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- "Return migrants' contribution to the development process - The issues involved", pp. 24-38.

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by Francis Wilson, November 1975 (out of print)

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shortened version published in Studi
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WP 6M  Basic aspects of migration from poor to rich
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by W.R. Böhnig, July 1976 (out of print)
"Determinants of labour immigration in industrial-
ised countries of Western Europe", pp. 5-23
(reprint of WP 1);
"Return migrants' contribution to the development
process - The issues involved", pp. 23-38 (reprint
of WP 1);
"Migration and policy: A rejoinder to Keith
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"The Migration of workers from poor to rich
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Arbeitsteilung als Alternative zur Ausländer-
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35-58.

WP 8M  Transfert d'emplois vers les pays qui disposent d'un
surplus de main-d'oeuvre comme alternative aux
migrations internationales: Le cas de la Suisse (II)
par D. Maillat, C. Jean Renaud, J.-Ph. Widmer, January

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**The two Working Papers Nos. 7 and 9 have been
published in shortened form as an ILO book. U. Hiemenz and
K.W. Schatz: Trade in place of migration (Geneva, 1979); also
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