INDUSTRIAL DEVELOPMENT IN A BORDER AREA

FACTS AND FIGURES FROM EAST LONDON

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by

J.P. Barker

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PREFACE

In the early 1950's the area of the eastern Cape Province adjoining the Transkei was the object of an intensive study known as the Border Regional Survey and five volumes have already been published.[1] This work is a more detailed investigation of one aspect of the economy, namely the growth of manufacturing industry. Its importance lies in the fact that not only is the African population increasing rapidly, but that effective rehabilitation of peasant farming in the Transkei and Ciskei must necessarily displace large numbers from the land. Expansion of manufacturing industry would appear to be the most effective means of providing remunerative employment for these people. Moreover, the government has embarked upon a policy of encouraging the establishment of factories on the periphery of the Bantu areas, and the eastern Cape is an important area in this general scheme. It may well be the most crucial testing point of the whole policy of 'border industries', because with its large Transkeian hinterland it is the area most in need of expanding employment opportunities; but, at the same time, by reason of locational and other disabilities, it is the area in which industrial expansion may be most difficult to achieve.

Mr. Barker was appointed to a research post in the Institute of Social and Economic Research at Rhodes University to undertake a detailed study of industrial development in the East London area during the period 1945 to 1960. He encountered considerable difficulty due to the fact that East London does not at present rank as one of the recognised industrial areas of the Republic for which industrial statistics are readily available. Moreover, several changes have recently been made in the system of classification of industrial statistics rendering recent figures not comparable with those of earlier years. Both Mr. Barker and the Institute of Social and Economic Research thank the Director and staff of the Bureau of Census and Statistics for their assistance in supplying unpublished data and other help so generously given. They also thank the many industrialists in East London who so kindly co-operated in supplying information about their concerns, and the Secretary of the Buffalo Catchment Association, Mr. J.A. Chew, for office accommodation and invaluable assistance in numerous ways.

This research was financed in part by a grant from the National Council for Social Research and in part from money voted for this purpose by the East London City Council. We thank both these bodies for their generous support. The views expressed are, however, those of the author alone and should not be taken as expressing the opinion of either the National Council for Social Research or the East London City Council.

D. Hobart Houghton
Chairman
Board of Management

Grahamstown,
July 1963.

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The writing of this book would not have been possible without the co-operation of the individual industrialists operating in the East London area. A special thank you is due, therefore, to those industrialists who have willingly divulged not only statistical data, but also general information based on their own experiences.

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August 1963.

John Barker
Institute of Social and Economic Research
Rhodes University, Grahamstown.

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INTRODUCTION

The East London district

The magisterial district of East London is situated on the south-east coast of the Republic of South Africa, at approximately 28° west of the Greenwich meridian and 33° south of the equator.[1] It occupies an area of 693 square miles, and the city of East London, whose population numbers more than 100,000 persons, is the seat of magistracy.

The topography, geology, vegetation and land uses of the district are the subject of a detailed volume by C. Board.[2] The area shows a broken and undulating relief with relatively few level stretches of land. The numerous rivers, large and small, which traverse the district provide excellent outlets for surface drainage, entrenched as they are in meandering valleys. East London is itself traversed by two rivers, the Buffalo and the Nahoon. Apart from being the source of the city's water supply, the Buffalo River provides East London with the Republic's fourth largest port, which is the only riverine harbour in the country. The mean annual rainfall of East London is 32.62 inches, occurring mainly during the summer months, while the temperature varies from an average of 62.6° F. in June to 67.8° F. in December. The temperature is remarkably constant throughout the year with a humidity which averages above 70 per cent.[3]

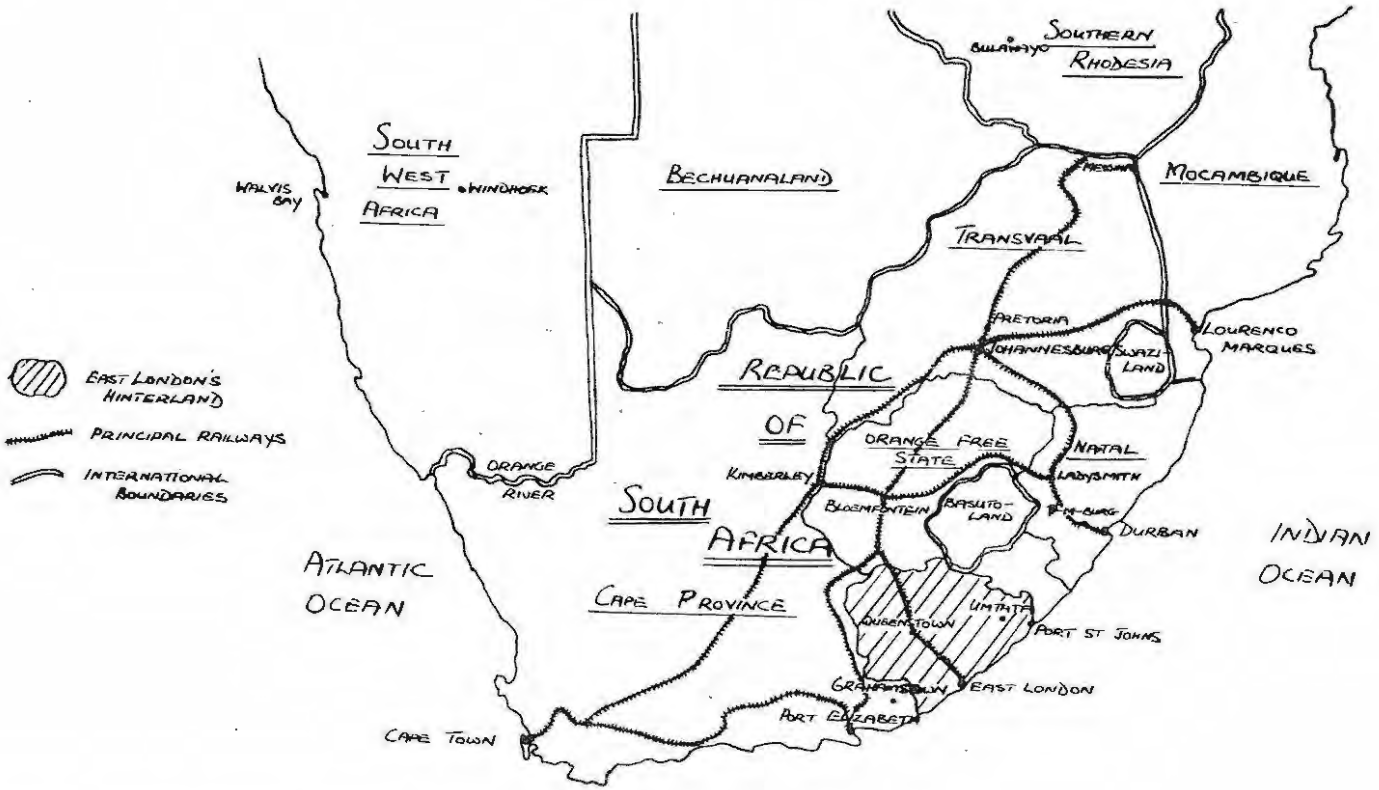
The city of East London is of major importance to the north-eastern areas of the Cape Province. Besides being a popular holiday resort, it provides its hinterland with an important harbour and railhead and it has long been the commercial and distributive centre for the north-eastern Cape and the Transkei. The wool trade provides East London's commercial sector with its greatest single source of revenue and the city ranks second only to Port Elizabeth in terms of the volume and aggregate value of wool sold each year in South Africa.[4] The price of wool can be regarded as the best guide to the level of economic activity in East London. The industrial economy of the city has shown marked expansion since the Second World War and present-day developments augur well for its industrial future.

Hinterland

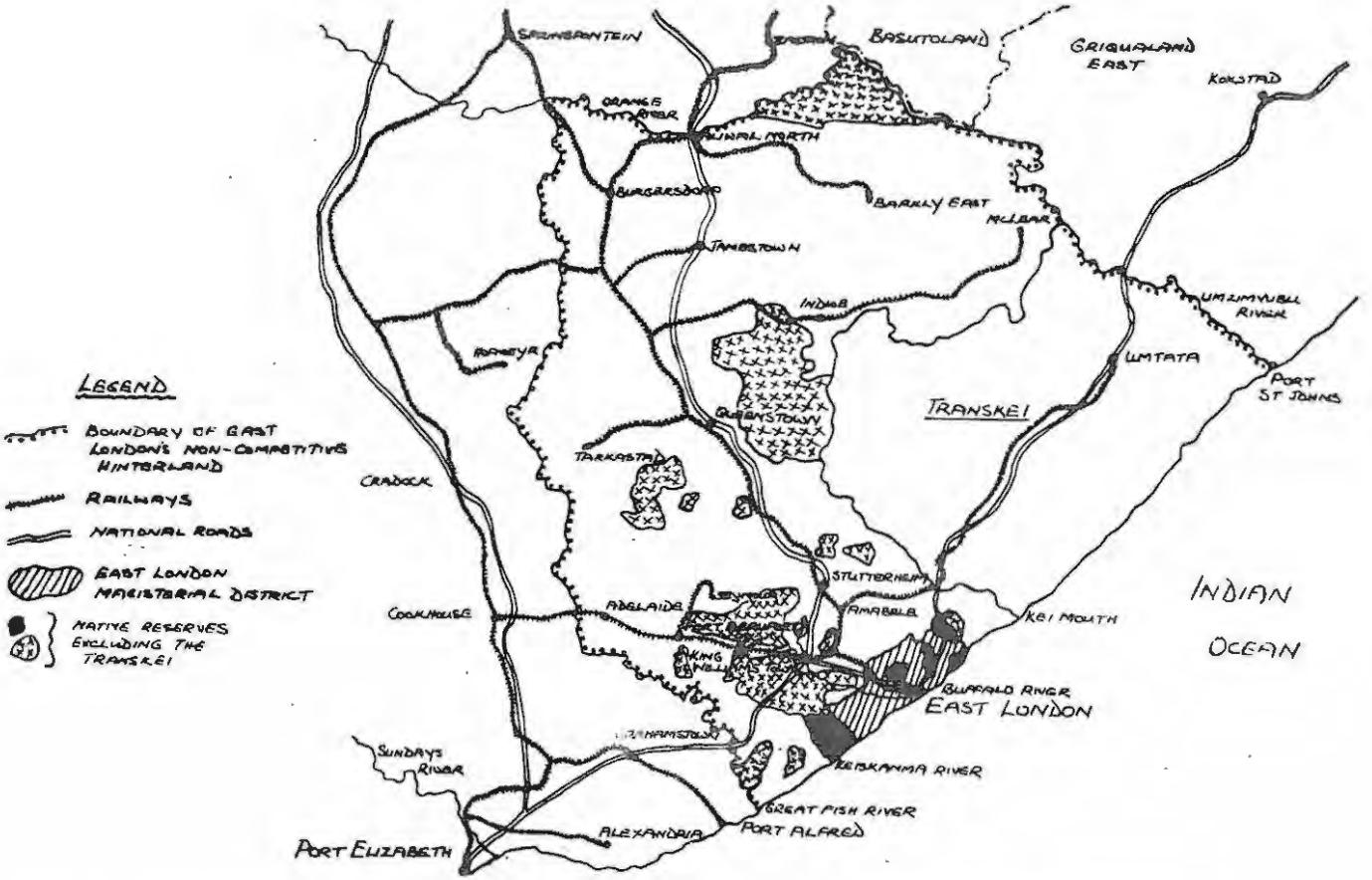
The economic hinterland of East London falls into three distinct categories. First, there is the immediate hinterland - dominated by East London - which will be referred to as the Border Area. Then there is the more extensive 'non-competitive' hinterland in which East London enjoys a marked commercial advantage; the boundaries of this area are determined largely by geographical factors and transport and communications facilities. Finally, there are those areas of the Orange Free State, the Transvaal, the Protectorates and even the Rhodesias which utilize the harbour facilities offered by East London. In these areas East London has to face the competition of the other major ports of the Republic.

The Border Area, or immediate hinterland, is neither an administrative nor a demographic unit but the name Border survives from the early days of the history of European settlement in the north-eastern Cape, and it is, today, widely used by various commercial, industrial and sporting bodies of the area. The Border Area is a somewhat vague concept, with no statutory boundaries, but for the purposes of this study it will be defined as that section of the country lying between the Keiskamma and Kei Rivers and extending inland as far as Queenstown. It was this area which, in an attempt to settle the complex frontier disputes of the Cape Colony, was annexed to the British Crown in 1847 by Sir Harry Smith, under the name of British Kaffraria, and placed under military control, in order to establish a buffer region between the white settlers in the south and the African tribes further north. Thus, British Kaffraria became known as the Border Area, but it was not to remain a military 'no-man's land' for long, as in 1860 it was proclaimed a separate Crown Colony and, six years later, was formally annexed to the Cape Colony under Governor Wodehouse. The area had, moreover, been opened up for settlement by black and white alike during the Governorship of Sir George Grey (1854-1862) who firmly believed in racial integration in a mixed economic society.[5] Today the name Border is still appropriately given to East London's immediate hinterland; not only does the area border on the Transkei native reserve territories, but it also falls within the orbit of the government's schemes for industrializing those areas adjacent to existing and projected non-white 'homelands'.

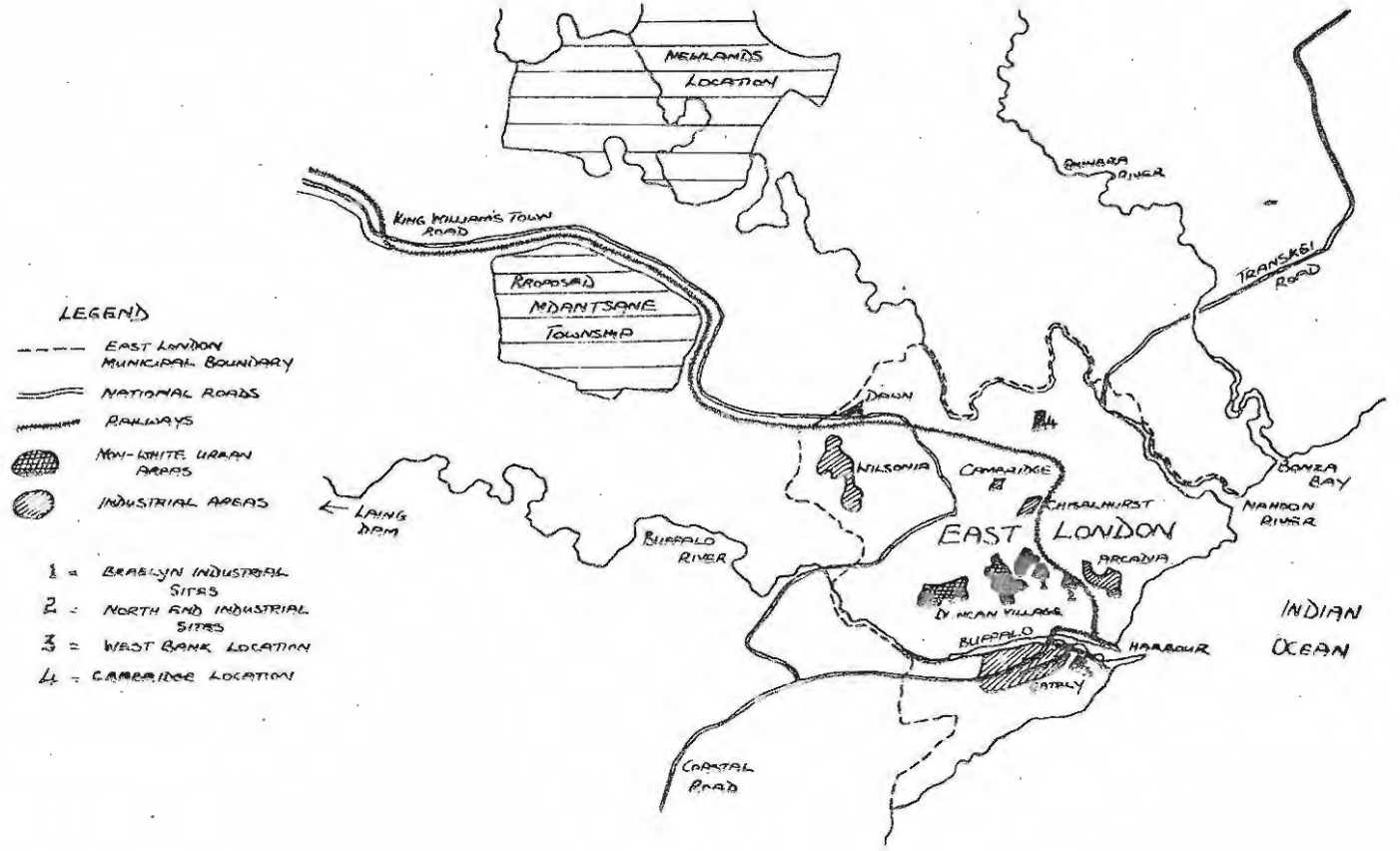
The principal centres of the Border Region are East London,



Map 1. South Africa showing the hinterland of East London.



Map 2. East London's hinterland showing Native reserves and communications.



Map 3. East London with its industrial areas and locations.

Queenstown and King William's Town, and the area is served by the main railway line from East London to Johannesburg, which passes through Stutterheim and Queenstown. Two branch lines serve the Transkei, one from Queenstown to Qamata, and one from Amabele to Umtata. There is also a link from King William's Town to the west to join the Port Elizabeth-Johannesburg line. National roadways link East London with Johannesburg, Durban and Port Elizabeth.

The non-competitive economic hinterland of East London is less easy to define, but it covers an area far more extensive than the Border Region. It may be taken as that area which naturally looks to East London as its commercial and industrial centre and as its chief port of entry to, and exit from, South Africa. Map 2 illustrates this area in some detail, showing the principal towns, most important rivers and the road and rail networks. Broadly speaking, the boundaries of the non-competitive hinterland are provided by the Great Fish River in the south, the Umzimvubu River at Port St. Johns to the north-east, and the Orange River to the north-west. It comprises 42 magisterial districts, which are listed in Appendix 'B', sixteen of which fall within the boundaries of the Transkei, and will shortly come under the direct control of a partially independent African government. A further four districts within the white-dominated areas are wholly comprised of native reserve territories (Glen Grey, Herschel, Middledrift and Keiskammahoek), and there is a considerable amount of native territory in some of the remaining districts - notably Queenstown, King William's Town, Peddie and Victoria East.

Since a large part of East London's non-competitive hinterland is made up of native territories, the economic, political and social future of the area as a whole, and of East London in particular, will be determined largely by government policies concerning the development and location of future African 'homelands' and the establishment of 'border industries'. Following on the Tomlinson Commission Report[6] the government has embarked upon a policy of developing the areas occupied by the main African tribal groups, and the Transkei, representing a large coherent land area occupied by Xhosa-speaking people, was given a measure of local self-government in 1963.[7] East London has been for the last century the main port for the Transkei, but the effects of the new political developments are diffi-

cult to foresee. It is probable, however, that a fuller implementation of the policy of separate development among South Africa's various ethnic groups will result in the establishment of additional African 'homelands' within East London's natural hinterland. Thus the extent to which effective economic development can be achieved in these areas is a matter of considerable importance to East London. But the fact that the projected non-white areas, including the Transkei, are among the most backward regions of South Africa presents serious problems for the advocates of the separate development concept, for political stability presupposes economic viability within these areas. For a variety of reasons, which will be discussed in more detail in chapter 8, the government has decided to pursue a policy designed to promote the development of industries on the periferies of the non-white 'homelands' - thereby hoping to stimulate the economic development of the 'homelands' themselves. Since the East London district itself constitutes a 'border area' its future as an industrial centre might well be determined by the success or failure of present policy.

Although the regions to the north of the Orange River do constitute an extended hinterland for East London, competition for the carrying trade of these areas is strong between the four major ports of South Africa and Lourenço Marques in Mocambique. East London enjoys something approaching a monopoly as the chief port for the south-eastern regions of the Orange Free State and southern Basutoland, but the main railway line from East London to Johannesburg joins the Port Elizabeth-Johannesburg line at Springfontein, and for all points north of this junction the two ports are in direct competition. Unfortunately, the East London harbour does not have the facilities or the capacity of the larger South African ports and it is therefore at some disadvantage when competing for the lucrative trade of the rich mineral and industrial centres of the Transvaal and the Orange Free State. Durban is the chief port for the Witwatersrand area as it is nearer to Johannesburg than any of the other South African ports. The nearest port to Johannesburg is, in fact, Lourenço Marques, but this lies outside the Republic.[8]

Topography of the non-competitive hinterland

The north-eastern Cape is predominantly an agricultural area and is characterized by a relative absence of mineral

deposits. Deposits of titanium have been discovered in the area just to the south of the Kei River and coal seams do exist in the Indwe district and in parts of the Transkei. Indwe coal was used by the Cape Government railways until 1910 but after the unification of South Africa all railway systems were able to make use of the high grade coal existing in Natal and the Transvaal. Hence the coal resources of the hinterland have not been exploited since 1910. The coal deposits of the Transkei territories are of poor quality and there is some doubt as to whether they could be mined profitably. The Indwe deposits are, however, of a higher grade and the possibility of establishing an industry for the extraction of chemical products from coal resources in that area has been mooted. A number of brickworks and quarries exist throughout the north-eastern Cape, and exotic timber is grown in areas north of Umtata and in the Amatola-Winterberg mountain ranges. The Border Area is well endowed with watercourses, particularly in regions below the Amatola-Winterberg ranges, but further development in the industrial sector of the economy will necessitate additional storage facilities to carry the various centres through dry periods. Rainfall in the King William's Town and Queenstown districts averages about 22 to 23 inches per annum, falling in the summer months for the most part, but both the inland plateaux and the coastal belt are liable to drought. Although the coastal belt has a warm climate throughout the year, the inland plateaux and the mountain ranges experience relatively extreme climatic conditions. The mean temperature at Queenstown, for example, varies from just above freezing point in July to well over 80° F. in the summer months.

The geological formation of the hinterland comprises the Beaufort and Stormberg series of the Karroo system.[9] The prevailing subgroup of the predominant Beaufort Series is the Burghersdorp Beds, while the Molteno Beds prevail in the Stormberg Series, which is found in the northern regions of the area. The Molteno Beds are of considerable importance as they contain the Indwe coal deposits.

Geographically, the hinterland has three broad divisions:[10] a) the area north of the Amatola-Winterberg ranges, which consists of an inland highveld plateau and includes the districts of Queenstown, Burghersdorp and Aliwal North. This section lies between 3,000 and 5,000 feet above sea level; b) the central

area, which consists mainly of the Amatola-Winterberg ranges to the north and west of King William's Town; and c) the coastal belt with an average width of between 30 and 40 miles. The vegetation of the hinterland also falls into three broad divisions: a) temperate savannah (including warm temperate forests) which comprises the coastal belt and the slopes of the mountain ranges; b) grasslands, which are found in the central and northern areas; and c) Karroo bush in the north-western regions. Soil erosion presents a serious problem throughout the area.

Agricultural pursuits

The general relief of the coastal belt, including the East London district, does not allow for large areas of arable land, but the most important agricultural activity in the area is the production of pineapples as a cash crop by white farmers. Climatic conditions, sandy soil and adequate drainage on the slopes of the hills offer the East London area an 'absolute advantage'[11] over other areas in the Eastern Cape in the production of pineapples. Other facilities which favour East London as a pineapple-growing area are the establishment of two canning factories in 1957 and 1958 and proximity to a harbour for export purposes. Board[12] points to the fact that the increased production of pineapples in the district has reduced the output of dairy products and mixed farming in general.

Apart from the more specialized production of pineapples, mixed farming of a varied nature characterises the East London agricultural scene. Dairy farming predominates in the Komga district but prevails throughout the coastal belt, while in the immediate environs of East London itself, market gardening is a major activity. In addition to pineapples, various citrus fruits, bananas, pawpaws and guavas are grown in the area, but large-scale cattle ranching or maize production is uncommon, although the coastal areas to the north of East London are increasing their output of wool.

Agricultural activity in the inland plateau is given to the production of wool and to cattle and stud farming. The districts surrounding Queenstown are particularly noted for their annual wool clips, fine cattle and thoroughbred horses, and there is a limited production of grain crops in the grassland areas. Exotic and indigenous timber plantations can be found in the central areas of the hinterland, particularly in the Stutterheim region and in parts of the Transkei, and dairy farming prevails through-

out the hinterland.

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Chapter 2

POPULATION AND GROWTH

No study of industrial development would be complete without a chapter on population movements. The density and purchasing power of the population of any region will determine, to a large extent, the level of economic activity within that region. In all societies the emergence of a strong industrial sector results in a redistribution of population as between rural and urban areas, and it will be seen that the growth of the East London metropolitan area has resulted in a declining rural population in the city's economic hinterland. The racial composition in the population of the hinterland is a matter of economic importance, as the presence of large numbers of Africans[1] with meagre incomes detracts from the market potential of the area.

Although detailed attention is given to the official census returns of 1951 and 1960 covering the distribution of population throughout East London's hinterland, it should be remembered that East London itself is the focal point of this book. Much of this chapter is, therefore, devoted to a brief history of the economic development of East London in an attempt to explain the gradual ascendancy of East London over other centres in the north-eastern Cape - in terms of population growth and economic wealth.

Growth of East London

The economic history of East London dates from November, 1836, when the 140-ton brig, the 'Knysna', anchored off the mouth of the Buffalo River and safely landed her cargo of arms and supplies for frontier troops. The 'Knysna' remained at anchor for some two and a half months, during which period her owner's son, John Rex, opened the pages of East London's commercial history by bartering goods with the Xhosa. The future port was officially claimed for Great Britain by Captain John Bailie, whose job it was to see to the transportation of the supplies overland to King William's Town, and what is now known as the West Bank was given the name of Port Rex. Bailie recognized the potentialities of the Buffalo and it was largely upon his suggestion (coupled with the urgent need for a frontier port) that the mouth of the river was surveyed in 1847. The results

of this survey proved to be satisfactory and in the same year a military post was established at Fort Glamorgan. On the 14th January, 1848, the settlement was given the name of East London and annexed to the Cape Colony.

The next period of any great significance to East London proved to be the years from 1857 to 1859. These were the years which marked the influx of about 5,000 settlers, of whom more than 4,800 were German immigrants. The remainder were the 'Lady Kenneway' girls, most of whom came from Ireland. Of equal importance, however, was the fact that 1857 was the year of the great 'cattle-killing' among the Xhosa peoples. The subsequent famine led to a rapid decline in the African population of British Kaffraria. In two years the numbers fell from an estimated 105,000 to 37,000 - enabling Grey to open up the land for white settlement and facilitating a more peaceful economic integration between whites and Africans, as many of the latter were now forced to sell their labour within the framework of an exchange economy.

The coming of the German settlers and the opening-up of large areas of land, which today constitutes East London's economic hinterland, gave rise to the development of East London's first industry - the production and export of wool - as well as other agricultural pursuits. Most of the new settlers resorted to the land for their livelihood and the 'German Market' of present-day East London survives as a reminder of their efforts to establish themselves as market gardeners. Ecological conditions were soon found, however, to be more suited to large-scale farming of a pastoral nature, and the production of wool rapidly became the predominant feature of Border agriculture.

In the initial stages of Border development, then, the gradual expansion of trade and commerce and the extension of social overheads (communications and transport systems) can largely be attributed to the growth of 'an extensively wool-producing district to which large quantities of imported goods are conveyed'.[2] Significantly enough, the wool trade is still today East London's greatest single source of revenue. It is also interesting to note that in 1861 the Colonial Botanist anticipated the success of timber plantations in the hinterland[3] and advocated the production of cotton in the eastern districts of Kaffraria,[4] where cheap African labour was available.

At this stage of development, manufacturing industry was

confined to the very limited production of such articles as wagons, boots and shoes for the small local markets. The African labour force was soon found to be inefficient and irresponsible, and any incentives to acquire skills and craftsmanship were lacking in a people living chiefly on agricultural and pastoral pursuits. The incorporation of Kaffraria as part of the Cape Colony in 1866 brought with it little in the way of development and it was not until the discovery of diamonds near Kimberley in 1870 that East London and the Border area as a whole came to share in the general prosperity of the Colony.

The economic boom which resulted from the diamond discoveries at Kimberley evidenced itself in the considerable expansion in rail and harbour facilities at East London, and in the increase in the commercial traffic of the Border region. In 1873, work began on the construction of the East London-Queenstown railway line, which was completed in 1880. Also in 1873, the construction of the break-water on the south side of the Buffalo River Mouth commenced. In the same year, municipal government was introduced to East London. (The East London Municipality was incorporated by Act of Parliament in 1880.) By 1878 ships were calling at East London at the rate of 200 a year, thereby establishing East London's claim to be the third port of the Colony.[5]

In spite of these developments, however, East London continued to play second fiddle to King William's Town as an economic centre until the very latter part of the nineteenth century. The Cape Colony's second census,[6] in 1875, which included Kaffraria for the first time, showed that King William's Town had become, apart from Cape Town itself, the most closely-settled area in the entire colony. King William's Town far surpassed East London in livestock and crop production, and in several instances outstripped all other Colonial areas - e.g., in cattle (where King William's Town ranked first in both density and total number),[7] millet and maize.[8]

For the 1875 census, neither East London nor King William's Town presented any significant returns in the field of industry.[9] East London could boast but one sawmill out of a Colonial total of 31, and nothing else, while King William's Town could muster 2 sawmills, 5 woolwasheries (out of a Colonial total of 57), and 4 tanneries (out of 36). The returns for the years 1877[10] and 1878,[11] however, reveal remarkable industrial growth in both

centres. In the latter year, East London reported 2 aerated water factories, 2 printing works, 5 bread and biscuit factories, 3 brick works, 2 producers of jam and confectionery, 1 cooper, 2 iron foundries, 1 tin and iron works and 3 makers of wagons and carts. In the same year, King William's Town possessed 5 aerated water factories, 2 printing works, 7 producers of saddlery and harnesses, 23 brick works, 2 gunsmiths, 1 cooper, 3 jam and confectionery-makers, 1 iron foundry, 23 bakeries, 17 boot and shoe factories, 4 tin and iron works and 10 producers of wagons and carts.

Thus it is clear that in the 1870's and 1880's King William's Town was a far larger centre of industrial activity than was East London, but the position has now been reversed, as the statistics in the Industrial Census, 1956/7 (private sector only),[12] indicate. It must not be inferred from the figures given, however, that there had been an absolute decline in industrial activity in King William's Town during the period under consideration, for the relative size, and the value of output, of each industry must be taken into account. For example, the 1956/7 Industrial Census reveals that there were only two bakeries operating in King William's Town in that year, whereas there were some 23 bakeries listed for 1878. Assuming, therefore, that the population of King William's Town has remained at least constant over the intervening years,[13] the output of the two bakeries existing in 1956 would be equal to the total output of all 23 bakeries operating in 1878. In actual fact, the consumption of bread, particularly in regard to non-white consumption, has undoubtedly risen considerably over the years, thus allowing for a far greater output in 1956/7.

Table 1

Number of industrial establishments

	1878	1956/7	Gross output R000 1956/7
East London	22	198*	32,062*
King William's Town	109	45*	8,854*

* N.B. These figures exclude all establishments associated with the motor industry

The following table presents a comparison between the number of industries existing in East London in 1878 and the corresponding numbers in each specific type of industry for the year

1951:

Table 2

Number of establishments - East London industrial sector 1878 and 1951

Industry	1878	1951[14]
Sawmills	1	7
Aerated water	2	4
Printing works	2	7
Bakeries	5	7
Brick works	3	9
Confectionery and jam	2	4
Cooperages	1	-
Iron foundries	2	13
Tin and iron works	1	13
Wagons and carts	3	3

As in the case of King William's Town, however, there has surely been an increase in the output of each enterprise in all groups of industries. The total number of private industries operating in East London in 1951[14] was 286, with a gross output of R26,180,000.

Such was the extent of the general prosperity in the Colony, generated by the growth of the diamond mining industry in the late 1870's and early 1880's, that neither the threat of African uprisings, nor even open rebellion in Basutoland in 1880, succeeded in stifling economic expansion in the Border divisions. East London looked to a bright future, both as a port for the rich mineral areas to the north-west and as a distributive centre for trade in the Border regions and native areas.

By 1881, the value of diamond exports from the Colony had reached an estimated R10 million,[15] and high prices for ostrich feathers and wool together brought the total value of the export trade, excluding diamonds, to more than R8 million in 1880.[16] Railway expansion and the steadily increasing consumer pattern of the African peoples stimulated trade and commerce.

1881, however, saw the beginnings of an economic depression within the Colony, which lasted for five years. In that year the European market for ostrich feathers cracked and, more important still, speculative mania and inflationary prices in the diamond industry came to an abrupt halt. The value of diamond scrip withered and credit restrictions were imposed by all banking institutions. Severe drought in 1883 added to the Colony's economic plight and imports fell by more than R6 million between 1882 and 1883.[17]

The tide turned in 1886. The value of wool, angora hair, copper, diamonds and gold increased in the export markets, and confidence was fully restored after the fantastic gold discoveries of 1887 in the Transvaal. Good harvests in 1887 and 1888 added to the general aura of prosperity and allowed for a decline in the volume of imported food-stuffs.

In East London, trade had continued to thrive until 1883. In all, 365 vessels called at the port in 1882, discharging a total of 150,000 tons of cargo.[18] But by 1883, the general economic depression was to make itself apparent in the East London harbour. Tonnage received in that year fell by 20 per cent and the harbour showed a loss for three months of the year.[19] Customs dues fell by R180,000 with the fall in imports, and by 1886[20] cargoes landed and shipped had dwindled to less than 50,000 tons.

The flow of immigrants to East London and the Border divisions dried up completely in 1884. A total of 321 settlers had arrived in 1880[21] and a further 260 in 1881,[22] but conditions on the frontier during the mid-1880's were not particularly favourable to settlement. Immigrants were generally placed far from towns and market centres, and the portions of land allotted them were too small for specialized farming. Disturbances among Africans at places like the Gonubie Location further discouraged settlement of the land, and it was not until the general economic revival in 1887 that harvests improved and agricultural production picked up. The Border farmers recovered remarkably quickly from the devastations of drought and marauding Africans, and the division soon became noted for the export of grain to several countries abroad. In 1885, 4,000 tons of grain and 1,350 tons of flour had to be imported[23] but the position had been somewhat reversed by 1887, when 9,103 tons of grain were exported and only 15 tons of flour imported.[23] A flour mill had been established at King William's Town and was producing to capacity from locally grown grain, with the result that in 1888 no flour was imported. As against the boom in grain production, however, revenue from forestry and tobacco was disappointing.

In spite of the severe economic slump, several important developments took place during the years 1881-1887 in the field of transport and communications in the Border divisions. By 1882, the breakwater on the south side of the Buffalo mouth had been extended to 1,200 ft. in length,[24] but the sand bar at the

mouth of the river still remained treacherous. As a result of reports from the Port Captain and Harbour Master, the Colonial Government at last decided to commission the dredger 'Lucy' from Holland for work in the East London harbour. The Lucy arrived in May 1886, and stuck to her task so assiduously that by 1888 54 steamers were able to enter the river.[25] East London thereby established her claim as a harbour for ocean-going traffic.

The Eastern System of the Colonial Railways reached Burghersdorp and Aliwal North in 1885. The cost of construction had been high - R21,540 a mile[26] - owing to the difficult terrain and steep gradients encountered en route, but some of the effects of the general depression were rendered less severe by the exclusive use of Colonial coal and the increase in wool and mohair traffic. Although trade improved after 1887, East London was unable to secure a reasonable share of the goldfields' traffic, on account of the scarcity of, and exhorbitant charges exacted by, wagon transport from Aliwal North. Railway expansion was considerably hampered by labour shortages and it is interesting to note that, in spite of wage offers of 25c-30c a day (a wage which compares favourably with existing levels for unskilled work) natives preferred to remain idle and resorted to theft in the years of depression and drought.[27]

The revival of the economy, launched by the discovery of gold, brought a new spate of industrial development to the Border areas. By 1888 factories for the production of flour, matches, confectionery, candles and soap had been established on the frontier, but until the turn of the century, King William's Town remained the leading commercial and industrial centre of the Border area.

'King William's Town or King as it is sometimes shortly termed ranks as an important commercial centre, being on the highway from the harbour of East London to the interior, and from the Eastern Districts to the Transkei and Kaffirland. It has also the chief command of the native trade, extending beyond the Border and north to Basutoland. The town itself is pleasantly situated, stretching along the banks of the Buffalo River, and connected by a branch line with the railway from East London to Aliwal North.'[28]

In 1891 an industrial census was taken, covering all areas of the Cape Colony, and the relevant statistics for both East London

and King William's Town are given in table 3.

Table 3

Industrial statistics 1891 : East London and King William's Town

	Establish-ments	Employment all races	Employment non-white
East London	48	282	108
King William's Town	66	722	323

Source: G.6-1892, Part XI, p.471.

Although the 1891 census returns indicate King William's Town's industrial superiority, the difference in the number of establishments existing in the two centres was not as great as it was in 1878 (table 1). The municipal valuation of property in East London was given at R913,510 in 1891 - slightly higher than the corresponding figure of R902,900 recorded for King William's Town. In the closing years of the nineteenth century two factors of major importance to the economic development of East London were to mark the end of King William's Town's supremacy in the Border area. The first was the steady increase in port traffic in East London, resulting from the efforts of the dredger 'Lucy', and the second was the completion in 1892 of the railway line from Burghersdorp to Springfontein,[29] which provided East London with a direct line to the borders of the Transvaal. For the first time East London was able to compete with Durban and Port Elizabeth for a share of the lucrative goldfields' traffic. The main railway line to the north by-passed King William's Town and the large merchant houses, which had established themselves in King William's Town before the development of harbour and rail facilities at East London, were forced to open up offices in East London if they were to expand their trade. Among the better-known of the merchant houses which were established in East London before the end of the nineteenth century were Baker King & Co., Dyer and Dyer Ltd., J.W. Weir & Co., and Mosenthal & Co., of which the first three had previously been established in King William's Town. The wool trade provided these firms with an important source of income, but they operated primarily as wholesale merchants.

Apart from becoming the commercial centre of the Border area, East London began to emerge as a more important industrial centre than King William's Town, and several firms which today rank among East London's major industrial enterprises

had their beginnings in East London before the end of the last century. Although it has now disappeared, shipbuilding provided East London with one of its first major industries, and in the 1880's there were three shipbuilding yards along the banks of the Buffalo River. Ocean-going liners were unable to cross the sandbar at the mouth of the Buffalo River and skilled workmen were imported from Scotland to build the lighters used to ferry their cargoes ashore. The industry was financed by commercial houses in East London and King William's Town, but it gradually disappeared as dredging and the extension of harbour facilities enabled larger ships to enter the harbour itself. In spite, however, of the increased production of confectionery, mineral waters, soft drinks, grain products, transport equipment and paints in the first decade of the twentieth century, the industrial sector of East London's economy lagged well behind the commercial sector until the end of the Second World War.

The population of East London grew rapidly between the years 1891 and 1904 as the statistics over the period between 1875 and 1904 reveal.

Table 4

Population of East London and King William's Town : 1875-1904

	1875	1891	1904
East London	2,134	6,924	25,220
King William's Town	5,169	7,226	9,506

Source: G.19-1905, Part 1, tables XX and XXI (for 1904)
G. 6-1892, Part 1, table XXII, p.36 (for 1891)
G.42-1876, table X, p.9 (for 1875).

The growth in East London's population was particularly rapid during the Boer War years of 1899-1902 when port traffic was greatly increased. Between 1891 and 1904 East London more than trebled its population, while the population of King William's Town increased by no more than one-third. As the twentieth century progressed, the gap between the population figures for the two centres widened and the latest official census returns show East London as having a population almost eight times that of King William's Town.[30]

Population of East London and its hinterland

Table 5 provides a detailed summary of population movements in the metropolitan area of East London for the census years 1921, 1936, 1946, 1951 and 1960. A graphical representation

of these population statistics is given in figure 1. The most noticeable feature of table 5 is the rate at which the non-white population of East London increased throughout the entire period 1921-1960. The African population in particular increased rapidly over these years and the 1960 census returns show for the first time a greater number of Africans than whites living in East London. Since 1921 East London's African population has increased at approximately twice the rate of increase in the white population, and it should be remembered that the official census returns for African urban dwellers are estimated by authoritative sources - among whom is the manager of East London's Native Administration Department - to be as much as from 15 per cent to 25 per cent short of the actual figures. In 1921 there were just under 9,000 more whites than Africans living in East London but in 1960 the official figures show an African majority numbering more than 8,000 persons, resulting from a four-and-a-half-fold increase in the African population.

Table 5

Population of East London - breakdown by race - 1921-1960

Year	Whites	Africans	Coloureds	Asians	Total
1921	21,010	12,210	2,053	704	35,977
1936	31,311	24,388	4,011	853	60,563
1946	40,118	32,656	5,193	1,238	79,205
1951	43,946	39,850	5,920	1,548	91,264
1960	47,830	55,878	8,316	1,722	113,746

Source: U.G.42-1955 Population Census 1951, table 7, p.46 (for 1921-1951). Unrevised statistics supplied by the Bureau of Census and Statistics for 1960.

The rate of increase in East London's coloured population was almost as high as that of the Africans and although the number of Asians living in East London is small, their rate of increase from 1921 to 1960 was also above the rate of increase among the whites.

In spite of the predominance of non-white persons in the East London metropolitan area in 1960 relative to the racial distribution of the population in 1921, the white population did in fact reveal a steady rate of increase up to 1951. The average annual percentage increase in the white population of East London during the period 1921-1951 was 3.6 and while this was not as high as the more explosive rates of increase for Africans (7.5 per cent) or Coloureds (6.3 per cent) it nevertheless indicates a population increase well above the expected natural rate of increase.

FIGURE 1.

POPULATION OF THE EAST LONDON METROPOLITAN AREA ... 1921 TO 1960

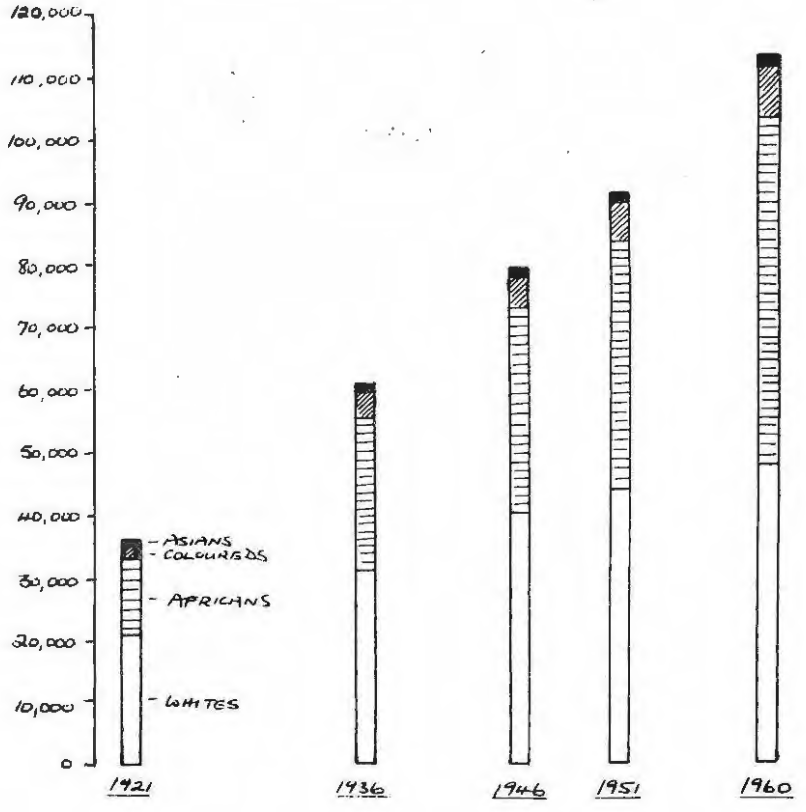


Table 6

Percentage increases in East London's population 1921 to 1951

	1951 population as a percentage of 1921 population	Average annual percentage increase
Whites	209	3.6
Africans	326	7.5
Coloureds	288	6.3
Asians	220	4.0

Table 7

Percentage increases in East London's population May 1951 to September 1960

	1960 population as a percentage of 1951 population	Average annual percentage increase
Whites	109	1.0
Africans	140	4.3
Coloureds	140	4.3
Asians	111	1.2

The phenomenon of an increasing rate of population in urban areas is common to all societies in the process of industrial development, when the 'pull' of the large urban centres tends to attract people away from the land. This is particularly evident among the African people in South Africa, where the developing industrial sector has attracted large numbers of migrant workers from the native reserves, to the urban centres, in order that the meagre income derived from subsistence farming may be supplemented by an industrial wage. To a lesser extent, the pull of the urban centres has also resulted in an increasing white urban population, but the limited employment opportunities offered for skilled workmen have weakened the population 'pull' exerted by East London in relation to the larger industrial centres. Figure 10 shows that the years 1946-1951 represent the most significant period in the history of East London's industrial development, yet during these years the average annual percentage increase in the city's white population was only 2.0 and the corresponding percentage for Africans was 4.4, with an actual increase of 3,828 whites and 7,194 Africans. The population statistics for the period 1951-1960 show an even greater decline in the average annual percentage increase in the white population of East London.

Although East London's industrial economy was expanding

during the years 1951-1960 (see figure 10) the white population increased by only 9 per cent during the whole period, giving an average annual increase of 1 per cent. In effect, it was little more than stagnant for nine years and the figures suggest that a number of whites must have left the city. An annual increase of 1.0 per cent in population does not even allow for the natural increase of population given the health facilities available to East London's white residents and, in fact, the average annual percentage increase of East London's white population over the years 1951-1960 was 0.7 per cent lower than the 1.7 per cent annual increase recorded for whites in South Africa as a whole. The African and coloured population increases given in table 7 were, however, somewhat higher than the South African averages for these years. An annual average population increase of 4.3 per cent is well above the expected natural rate of increase for these racial groups, particularly among Africans, whose annual average rate of increase throughout South Africa as a whole was only 2.8 per cent between 1951 and 1960. The population figures from 1921 to 1960 indicate that there has been an explosive increase in East London's non-white population, but the seriousness of the situation arises from the fact that there has not been a corresponding increase in the rate of industrialization in East London. Thus population pressures among the non-whites have exceeded the rate at which employment opportunities have been created, but no similar increase in the white population can be looked for until there has been the required degree of industrialization.

Of the 42 magisterial districts which comprise the non-competitive hinterland of East London, the magisterial district of East London itself is the most densely populated. In 1960 the district accounted for more than 10 per cent of the total population of the hinterland and had a population density of 251 persons per square mile covering an area of 693 square miles. In the same year, the magisterial district of King William's Town had a population of 92,046 persons and a density of 107 persons per square mile. More than two-thirds of the total population of the East London magisterial district are urban dwellers - 95 per cent of whom reside in the city of East London. This contrasts with a ratio of more than four to one in favour of rural dwellers for the population of the hinterland as a whole - in fact, of the remaining 41 districts in the hinterland only Queenstown and

Aliwal North show a population distribution favouring the urban dweller.

Table 8

Population of the East London magisterial district 1951-1960

	1951			1960		
	Urban	Rural	Total	Urban	Rural	Total
Whites	44,584	4,324	48,908	50,196	4,061	54,257
Africans	40,895	35,226	76,121	58,126	50,483	108,609
Coloureds	5,972	538	6,512	8,480	583	9,063
Asians	1,549	12	1,561	1,727	12	1,739
TOTAL	93,002	40,100	133,102	118,529	55,139	173,668

Source: U.G.42-1955, pp.14-17, for 1951. Unrevised statistics supplied by the Bureau of Census and Statistics, Pretoria, for 1960.

The outstanding feature of population trends in the East London district during the period 1951-1960 was the growth of the African population, both urban and rural, and the 1960 census returns show for the first time a majority of Africans in the district's urban population. The total African population in the East London district showed an increase of 32,488 persons from 1951-1960, with a rural increase of 15,257 and an urban increase of 17,231 persons. The total white population increased by only 5,349 persons during the same period, with an increase of 5,612 urban residents but an absolute decline - amounting to 263 persons - in the rural population. The Asian population rose by 178 persons and the number of coloureds increased by 2,551 persons. The vast majority of Asians and coloureds are urbanized.

The total population of the Republic of South Africa was 15,841,128 in 1960, which represented an increase of 25 per cent or 3,169,676 persons over the 1951 figure. Table 9 gives a comparison between the numerical and percentage increases in population for South Africa as a whole and the East London district for the years 1951-1960. The fact that the percentage increase in the total population of the East London district was higher during this period than the percentage increase given for South Africa as a whole - 30 per cent as against 25 per cent - must be attributed to the high rate of growth in East London's African population. The percentage increase in the African population of the East London district was 43 per cent as against an increase of 26 per cent for South Africa and it is significant that the high percentage increase in African population was not confined to the urban areas of the East London district. The

rate of growth achieved by the coloured population of the East London district between the years 1951 and 1960 was also higher than the South African average for this group, but East London's white and Asian population growth rates fell well short of the corresponding figures for South Africa. The average annual increase in the white population of the East London district was in fact 1.2 per cent, which once again fails to measure up to the expected natural rate of population increase.

Table 9

Population increases - South Africa and East London district 1951-1960

	South Africa	East London magisterial district
Whites:		
Numerical increase	425,949	5,349
Percentage increase	16	11
Africans:		
Numerical increase	2,247,726	32,488
Percentage increase	26	43
Coloureds:		
Numerical increase	385,251	2,551
Percentage increase	35	39
Asians:		
Numerical increase	110,750	178
Percentage increase	30	11
ALL RACES:		
Numerical increase	3,169,676	40,566
Percentage increase	25	30

The actual increases in, and racial composition of, the population of the East London district from 1921 to 1960 are presented in graphic form in figure 2, with figure 3 showing the population curves taken from the box charts of figure 2. The increasing divergence between the African and the white population is evident throughout the period but it becomes more pronounced during the years 1951-1960, with a sharp increase in the African growth rate and a levelling off in the rate of increase among the whites. Figure 4 shows the relationship between the urban and rural populations of the East London district for the years 1921-1960. Although the percentage of urban dwellers increased slightly between 1921 and 1936, the ratio of urban to rural population has remained fairly static since 1936 - at approximately two urban dwellers to one rural dweller.

In 1960, the total population of East London's non-competitive

FIGURE 2.

POPULATION OF THE EAST LONDON MAGISTERIAL DISTRICT
1921 TO 1960

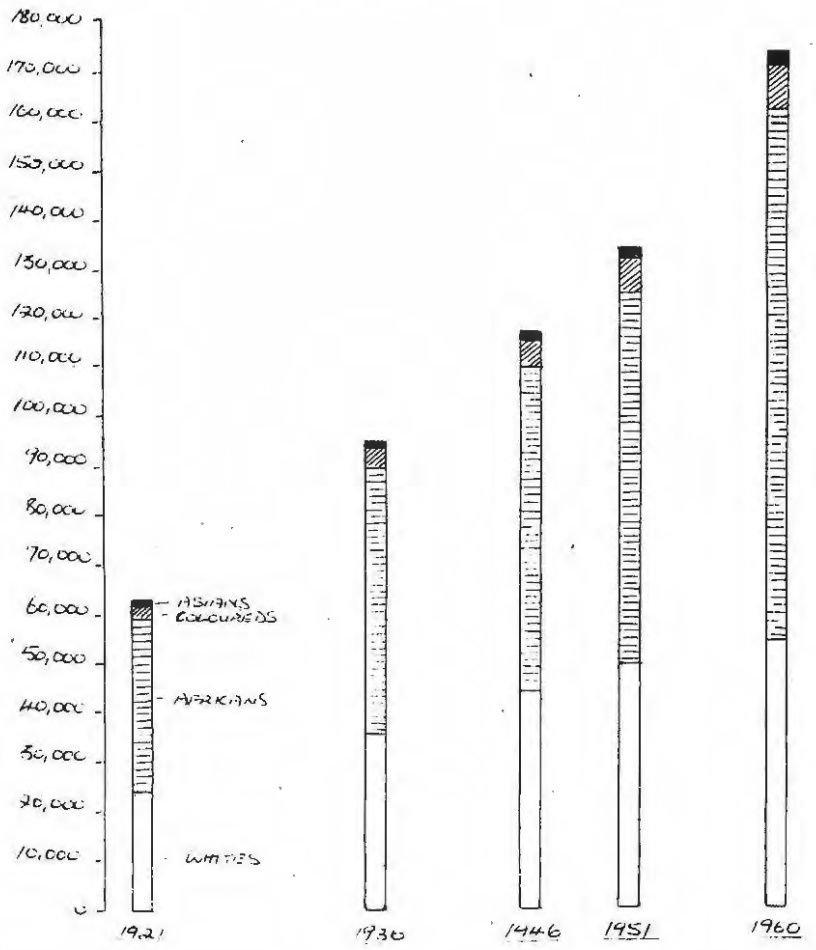


FIGURE 3

POPULATION CURVES BY RACE : EAST LONDON DISTRICT
1921 TO 1960

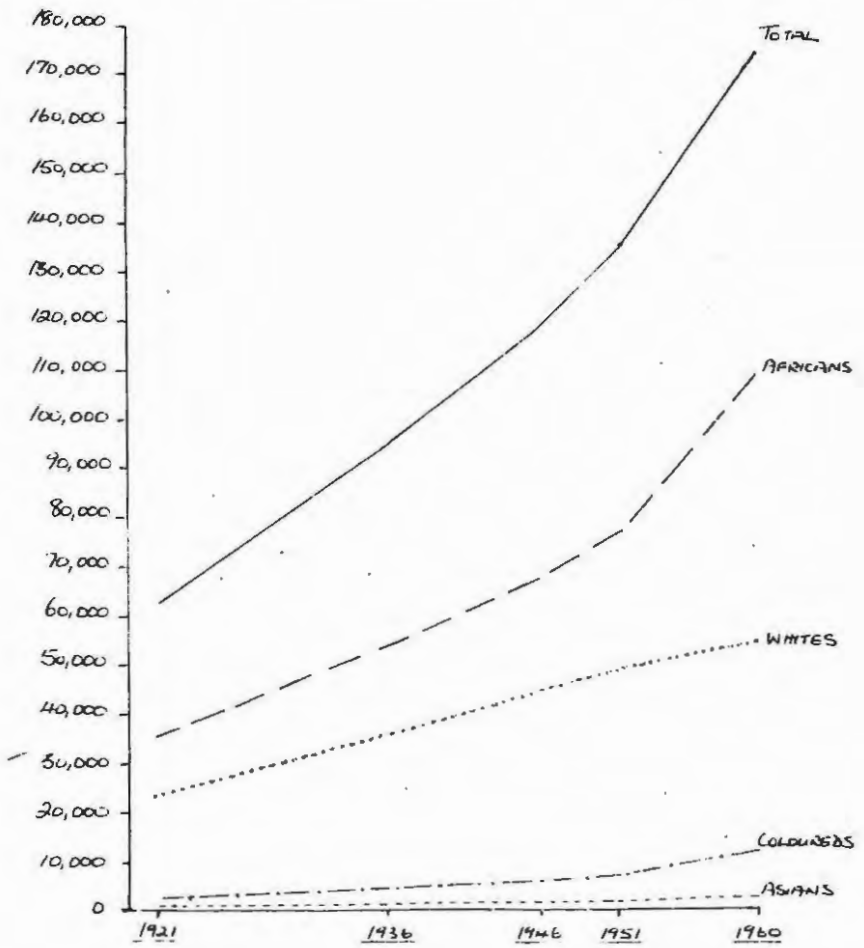


FIGURE 4

URBAN AND RURAL POPULATION OF THE EAST LONDON DISTRICT : 1921 TO 1960

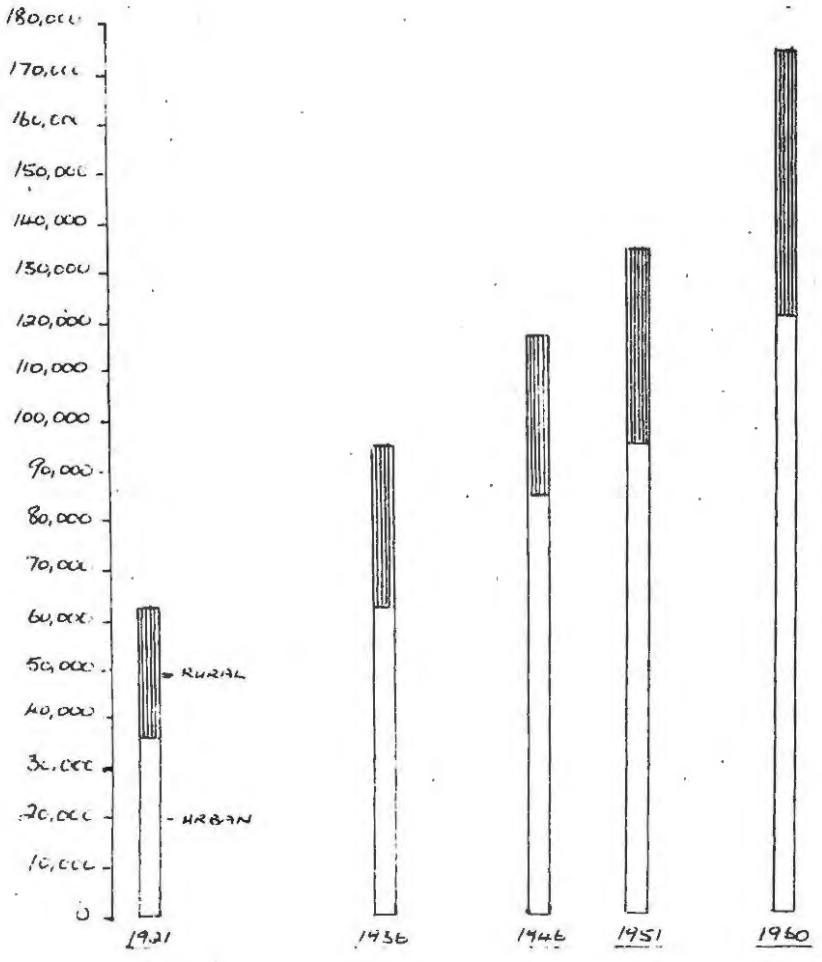
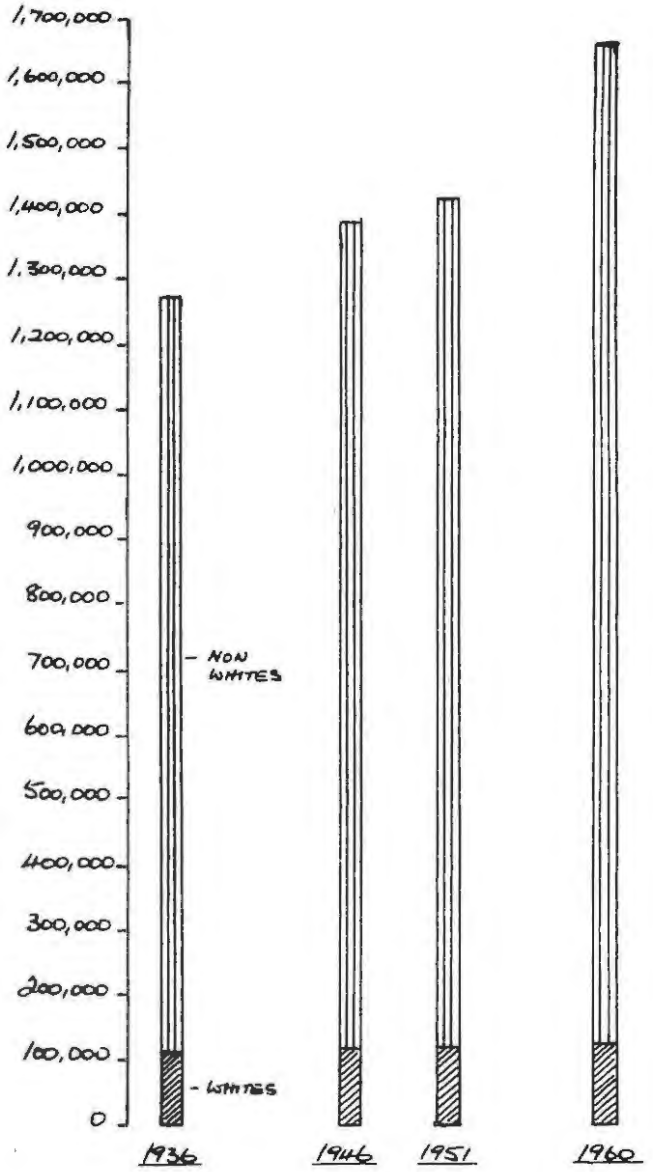


FIGURE 5

POPULATION OF EAST LONDON'S ECONOMIC HINTERLAND
WHITES AND NON-WHITES : 1936 TO 1960



economic hinterland (including the city of East London itself) was 1,653,392 persons, of whom 811,096 were living within the borders of the Transkei. The economic hinterland is 27,703 square miles in area, giving a population density of 60 persons per square mile. The sixteen Transkeian districts have an average density of 103 persons per square mile and the remaining twenty-six districts have a density of 43 persons per square mile.

Table 10

Population of East London's hinterland - 1951 and 1960 (including East London city)

	1951	1960
Whites	119,452	120,628
Africans	1,270,270	1,491,330
Coloureds and Asians	34,864	41,434
ALL RACES	1,424,586	1,653,392

Source: U.G.42-1955, for 1951.
Unrevised statistics supplied by the Bureau of Census and Statistics, Pretoria, for 1960.

Of the population of the hinterland in 1960, 1,344,423 persons were rural dwellers and 308,969 lived in urban areas. The urban population of the hinterland - including East London - represented only 19 per cent of the total, whereas 44 per cent of South Africa's total population were urbanized. The preponderance of rural dwellers in East London's hinterland is due to the existence of a large number of native reserve territories in which a semi-subsistence economy, based on primitive agricultural pursuits, predominates. Table 11 emphasises the absence of any large-scale urban settlement among the African inhabitants of the hinterland of East London and indicates that the percentage of urban Africans calculated for the hinterland is much lower than the corresponding percentage for South Africa. The other race groups in the hinterland more or less follow the trend shown by national percentages.

Table 11

Urban population of East London's hinterland - 1960 (including East London city)

	Whites	Africans	Coloureds & Asians	Total
Persons	97,658	180,449	30,862	308,969
Percentage urban of total for each race	81	13	76	19
	(80)	(30)	(68)	(44)

(The figures in brackets are the corresponding percentages for South Africa as a whole.)

In table 12 the percentage increases for each racial group and for total population shown for East London's hinterland during the period 1951-1960 are well below the average percentage increases given for South Africa. It is further evident that population increases shown for the hinterland as a whole are below those given in table 9 for the East London district alone. The very small increase in the white population of the hinterland is significant in that it indicates a percentage depopulation of the area on the part of the white inhabitants and says little for the rate of economic or industrial development in the hinterland. In 1951 the white population of the hinterland amounted to 8.2 per cent of the total, but in 1960 the whites comprised only 7.3 per cent of the total. These figures suggest that the rate of industrial development in the area has not been sufficient to provide employment outlets for those persons moving off the land. It must be remembered that they include East London, and the only inference can be that the city itself has not been able to absorb the whole of the declining rural population of its hinterland - more especially if allowance is made for the natural rate of population increase. These facts point to the imbalance in the regional pattern of industrial development in South Africa and lend support to the protagonists of industrial decentralization.

Table 12

Percentage increases in population - 1951 to 1960 - South Africa and East London's hinterland (including East London)

	Hinterland	South Africa
White	1	16
African	18	26
Coloured and Asian	19	34
TOTAL	17	25

If the population statistics relating to the East London district - table 8 - are removed from those given for the hinterland as a whole, an absolute decline in the white population of the hinterland becomes apparent. In each case, the percentage increases given in table 13 are lower than those given in table 12, where population figures relating to the East London district have been included. Figure 6 illustrates population movements in East London's non-competitive hinterland (excluding the East London district itself) for the years 1936-1960, and indicates the racial distribution of population for each year. The exclusion of statistics

Table 13

Population figures for the hinterland - excluding East London 1951 and 1960

	1951	1960	Percentage increase 1951-1960
Whites	70,544	66,371	-6
Africans	1,194,149	1,382,721	16
Coloureds and Asians	26,791	30,632	14
TOTAL	1,291,484	1,479,724	15

relating to the East London district considerably alters the urban percentages given in table 11 for the hinterland as a whole in 1960. For each racial group the urban percentage shown in table 14 is lower than the corresponding percentages given in table 11. The percentage of urban Africans in the hinterland falls to 9 per cent and the urban population as a whole falls to only 13 per cent of the total. In spite of the removal of the East London figures, however, the percentage of urban whites in the hinterland remains high at 72 per cent.

Table 14

Urban population of the hinterland - excluding East London 1960

	Whites	Africans	Coloureds & Asians	Total
Persons	47,462	122,323	20,655	190,440
Per cent urban of total for each race	72	9	67	13

The full extent of the decline in the white population of the hinterland - excluding the East London district - is revealed in table 15 and illustrated in figure 7 together with the increasing white population of the East London district, for the period 1936-1960. The figures for the hinterland cover rural and urban areas alike and it can be assumed that an analysis of rural figures only for these years would reveal an even greater decline in white population, for towns such as Queenstown have grown considerably during the past two decades. The rate of decrease increases, moreover, when the natural rate of population growth is considered.

Table 15

Declining white population of the hinterland - excluding the East London district: 1936-1960

1936	1946	1951	1960
76,180	71,352	70,544	66,371

FIGURE 6

POPULATION OF THE ECONOMIC HINTERLAND — EXCLUDING THE EAST LONDON DISTRICT: 1936 TO 1960

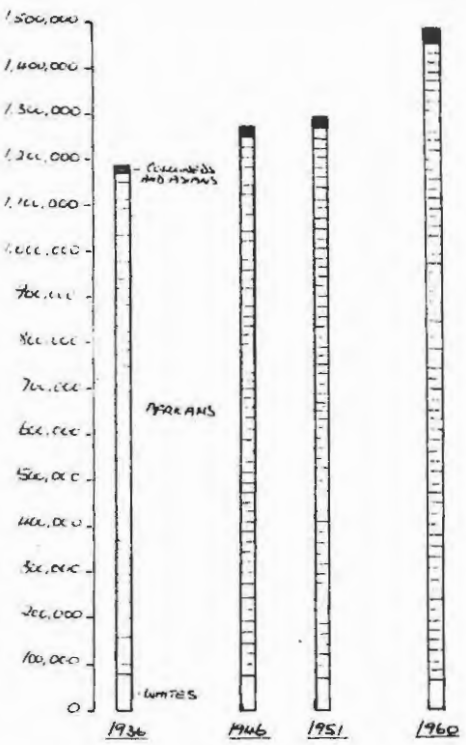
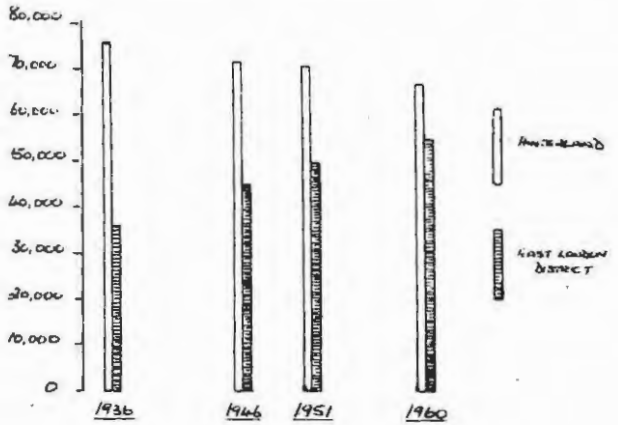


FIGURE 7

DECLINING WHITE POPULATION OF THE HINTERLAND — EXCLUDING EAST LONDON — AND THE INCREASING WHITE POPULATION OF THE EAST LONDON DISTRICT: 1936 TO 1960



A racial breakdown of the 1960 population returns for the Transkeian districts included in East London's hinterland is given in table 16. Of the total population of the sixteen districts 98 per cent are Africans and it is probable that, with the coming of semi-independence for the Transkei as a whole, this proportion will be exceeded, since although the white residents of the Transkei may remain after the granting of self-rule, it is unlikely that the coloured population will increase.

Table 16

Population of 16 Transkeian districts within the hinterland 1960

	Whites	Africans	Coloureds & Asians	Total
Persons	9,730	796,347	5,019	811,096

Source: Unrevised statistics supplied by the Bureau of Census and Statistics, Pretoria.

Femininity

A remarkable feature of the East London district's population was the high degree of femininity revealed in the census returns. In 1960 females exceeded the males by over 13,000, and a racial breakdown into sexes indicates that females outnumbered the males in each racial group. The preponderance of white females was especially noticeable in the urban areas, where lack of employment has been one of the major causes of sex imbalance, and it appears that it is not only the African labourers from these parts who are forced to seek work elsewhere in the Republic. There was a marked decrease in the percentage of males in East London's non-white urban population during the period 1951-1960. This trend has developed in spite of an increase of 17,231 persons in the total urban African population and it indicates not only an influx of African women to the urban areas but

Table 17

Number of males per 100 females - East London district: 1951 and 1960

		1951	1960
Urban			
	Whites	92.4	92
	Non-whites	96.9	85
Rural			
	Whites	106.8	106
	Non-whites	82.6	80
Total			
	Whites		92.4
	Non-whites		83
	All races		85.5

also a substantial efflux of African male migrant labourers.

In the East London district in 1960 there were 85.5 males per 100 females for all races and in the metropolitan area of East London the number of males per 100 females increased to 87.1. As the proportion of urban to rural population declines, however, so the female majority increases. For East London's economic hinterland as a whole, there were as few as 77.3 males per 100 females in 1960. Of a total population of 1,653,392 persons, 932,668 were females and 720,729 males. The existence of twenty native reserve districts within the hinterland - including the Transkeian territories, wherein large numbers of African males are absent as migrant labourers - undoubtedly accounts for the low percentage of males for the hinterland as a whole. For the twenty native districts the number of males per 100 females is as low as 71.7, hut the following breakdown by sex of the population of the East London metropolitan area emphasises that a female majority is confined neither to native districts nor to rural areas.

Table 18

Population of East London by race and sex - 1960

	Whites	Africans	Coloureds	Asians	Total
Males	22,916	25,236	4,036	853	52,941
Females	25,014	30,642	4,280	869	60,805

Urban centres

Appendix 'C' contains a list of 32 towns in the East London hinterland which have a total population of 1,000 persons or more. Of these only 10 have been listed as having a total population in excess of 5,000 persons. An interesting aspect of this appendix is the high ranking of Zwelitsha - 6,232 persons of whom only 7 were whites - as an urban settlement. Zwelitsha lies in the neighbourhood of King William's Town, close to a large textile mill which provides employment for the inhabitants: it is the most successful experiment thus far in the establishment of an urbanised African community.

REFERENCES

1. Suitable terms to describe the different racial groups in South Africa are not easily found, particularly with regard to the Bantu-speaking indigenous population of the country. An attempt has been made, however, to employ terms which will eliminate as far as is possible ambiguities and emotional or political overtones. In general, white South Africans will be referred to as 'whites'; people of mixed racial descent will be referred to as 'coloureds' or the 'Cape Coloured people', originating as they

do in the Cape Province; and the brown-skinned Bantu-speaking people will be referred to as 'Africans' - a term which they themselves view with most favour. In order to avoid unnecessary ambiguity territories which have been reserved for the settlement of the various African tribes will be referred to as 'Native Reserves' or 'Native territories' as in chapter one. The 'Xhosa' ethnic group predominates among Africans in the north-eastern Cape.

2. G.21-1861, p.19.
3. G.38-1861, p.2.
4. G.34-1862, p.2. (An interesting point here is that the textile industry has proved one of the mainstays of industrial growth in the Border area. See also an article in the Daily Dispatch (East London), 10.5.1962 re the revival of the cotton-growing industry in the East London area.)
5. Cape of Good Hope, Blue Book, 1878, pp.N.12-13.
6. G.42-1876, Vol.1, p.6.
7. Ibid. pp.XVIII-XIX.
8. Ibid. pp.X-XI.
9. G.42-1876, B. Vol.1, p.22.
10. Cape of Good Hope, Blue Book, 1877, pp.S.3-4.
11. Cape of Good Hope, Blue Book, 1878, pp.S.3-4.
12. Special Report no.240 of S.A. Bureau of Census and Statistics.
13. According to the 1875 census (G.42-1876, Vol.1, p.5) the population of King William's Town was then 107,000, of whom 9,000 were whites. The King William's Town area totalled 1781 sq. miles in 1875. The 1960 census shows the town as having an area of 854 sq. miles, a total population of 92,046, and a white population of 9,089. Thus the population density in 1875 was 57 persons per sq. mile, but it rose to 108 persons per sq. mile in 1960.
14. All 1951 statistics supplied by the S.A. Bureau of Census and Statistics (Industrial Census no.34).
15. G.42-1882, p.8.
16. G.42-1881, pp.5-6.
17. G.26-1884, pp.1-2.
18. G.50-1883, pp.17-18.
19. G.47-1884, p.16.
20. G.34-1887, p.11.
21. G.56-1881, p.7.
22. G.64-1882, p.8.
23. G.31-1888, p.14.
24. G.50-1883, pp.17-18.
25. G.23-1889, p.18.
26. G.47-1884, p.21.
27. G.2-1885, p.31.
28. Cape of Good Hope - Official Handbook, 1886: Saul Solomon & Co., p.102.
29. G.43A-1892, p.39.
30. In 1960 the population of East London was 113,746 persons compared with 14,646 persons resident in King William's Town.

Chapter 3

INDUSTRIAL DEVELOPMENT IN EAST LONDON

The importance of the manufacturing industrial sector within the South African economy as a whole

The South African economy has undergone three major structural changes in the past 100 years. Until the discovery of diamonds in 1870 and gold in 1886, the country's economy was almost wholly agricultural, apart from a few small industries serving a limited local market. Towards the end of the nineteenth century, as mineral resources were developed, the mining industry became the predominant sector in the economy, and the flow of investment resources from abroad was completely absorbed into the mining arena. The quick returns obtainable from investments in the mining industry accounted for the comparatively late development of the manufacturing industry in South Africa, apart from small concentrations of subsidiary industries established to cater for the basic needs of the mines themselves.

With all the available capital and technology being absorbed into the mining industries, and South Africa well able to afford to pay bullion for consumer-goods imported from Europe, the economy developed a severely imbalanced structure. It was not until the productive capacity of Europe's industrial centres was seriously disrupted during the First World War, that the first concerted efforts towards the establishment of a manufacturing sector initiated the third structural change in the economic scene. Industrial development had, moreover, gained added impetus from the political and economic unity achieved for South Africa in 1910.

Development in the field of manufacture remained gradual, however, until the losses of the Great Depression of the early 'thirties had been recovered and a great stimulant to secondary industry provided by the establishment of the South African Iron and Steel Corporation (ISCOR). This was incorporated by Act of Parliament in 1928 and commenced its productive programme in 1934, with State financial aid. Mineral activities had seen to the expansion of the railway systems from the chief harbours to the interior and to the extension of basic social overheads, and

provided much of the capital which enabled the manufacturing industry to double the net value of its output in a remarkable period of growth from 1934 to 1940, when net output rose from R72,000,000 to R142,000,000.[1]

Consumer needs in the Second World War gave secondary industry in South Africa a considerable boost and the general expansion in consumer demand in the immediate post-war years sustained industrial development, which was financed in part by substantial sums of investment capital seeking outlets from the European and London money markets. By 1948, the third structural change in the South African economy was complete, and the manufacturing industrial sector had emerged as the leading sector in the country's economy. Table 18a gives the value of income derived from the four leading economic sectors in South Africa for the years 1939, 1948 and 1952.

Table 18a

Derivation of national income (R million)

Sector	1939	1948	1952
Agriculture, forestry, fishing	100	278	352
Mining	154	172	332
Manufacturing	140	364	640
Trade	108	266	332
TOTAL national income	790	1,700	2,560

Source: Union Statistics for 50 years, 1910-1960, table S, p.3, published by S.A. Bureau of Census and Statistics, Pretoria.

The contributions of the distributive trades to the National Income of South Africa have increased markedly with the expansion of the domestic market and the growth of the manufacturing industry. Another feature of the above table is the small rate of increase in the income derived from the mining industry between 1939 and 1948, followed by a spectacular rise in mining income with the opening up of the Orange Free State gold mines in latter years. Table 19 shows that by 1959-60 the mining industry had regained second place in the order of major contributors to the gross national income or product. It is clear from the figures that South Africa is essentially an industrial and mining land. The fact that gross income from agriculture has shown a relative decline over the past decade is significant, and if it is remembered that mineral wealth is by no means inexhaustible, the importance of the manufacturing sector is empha-

sised to the full. It is largely to this sector of the economy that one must look for future economic stability and progress.

Table 19

National income by economic sector (R million)

Sector	1955/6		1957/8		1959/60	
	National income	Percentage of total national income	National income	Percentage of total national income	National income	Percentage of total national income
Agriculture, forestry and fishing	507.4	14.1	488.6	12.3	509.3	11.4
Mining	474.4	13.2	513.6	12.9	623.0	13.8
Manufacturing industry	857.0	23.8	975.0	24.5	1,059.8	23.4
Trade	467.8	13.0	496.6	12.4	575.2	12.7
Total gross national income	3,593.2	100.0	3,976.2	100.0	4,526.2	100.0

Sources: S.A. Reserve Bank's Quarterly Bulletins of Statistics:
no.47, March 1958, p.33 for 1955/6,
no.51, March 1959, p.31 for 1957/8,
no.67, March 1963, p.31 for 1959/60.

The fact that so great a part of the national economy has been, and continues to be, geared towards mining interests has considerable bearing on the industrial development of East London and the Border Regions. The heart of the mining and financial world in South Africa is centred on Johannesburg and the Witwatersrand and it is in these heavily populated areas that South Africa's market economy is most highly developed. Johannesburg - by virtue of its position in relation to the gold-bearing reefs - has become the commercial and industrial metropolis of Southern Africa and the majority of industrial establishments have been located on the 'Rand'. Much of the past economic history of South Africa has been simply a question of all roads leading to Johannesburg, with the result that the economic advancement of most other areas has, until fairly recent times, been overlooked. The East London area, in spite of the advantage of its harbour, suffered more than most centres, owing in part to the lack of resources and markets in its hinterland, but owing also to near-sighted policies of local authorities and vested wholesale interests in the boom periods before and immediately after the Second World War.

Fortunately for East London, however, the present South

African government has embarked on a policy of industrial decentralisation, the implementation of which is to be seen in the establishment of so-called 'border' industries.[2] Situated as it is on the peripheries of Transkeian and Ciskeian Native Territories, East London occupies a pivot position in regard to government policy, and the need for industrial development in the area commands a great deal of the government's attention. It is from this urgent need to further industrial expansion in the East London area that the present study derives much of its impetus.

The five major industrial areas in the Republic

The five leading industrial areas in South Africa are, in order of importance, the Southern Transvaal, Western Cape, Durban and Pinetown, Port Elizabeth and Uitenhage, and East London. A statistical summary of industrial development in the private sector is given in table 20 for the period 1946/7 to 1953/4[3] for each of the above five areas, as well as for the Republic as a whole. Bearing in mind the dualistic character of South Africa's economy as a whole it is not too surprising to find such a large percentage of industrial output confined to so few areas, but what is more remarkable is the absolute predominance of the Southern Transvaal in the industrial field. These statistics thus emphasise the tendency towards the concentration of industry in the Witwatersrand area. Of the five major areas, East London's contribution to national industrial output is by far the smallest, with the value of East London's net output, expressed as a percentage of total net output for South Africa as a whole, remaining at 1.4 per cent over the period 1946/7-1953/4.

The percentage contributions of each of the five major industrial centres, and the combined percentage totals for all five centres, towards South Africa's total number of industrial establishments and total values of gross and net output for the years 1946/7 and 1953/4 are given in table 21. Not only does table 21 indicate that the industrial output of the Southern Transvaal was more than three times as great as that of its nearest rival - the Western Cape area - in 1953/4, it also reveals that the percentage of total output accruing to the Southern Transvaal increased over the years 1946/7 to 1953/4, thereby strengthening the trend towards severe regional imbalance in the nation's industrial structure. In choosing the Witwatersrand area of the Southern Transvaal, private enterprise is merely endorsing the principle

Table 20

Industrial statistics for five major industrial areas in South Africa
private sectors only : 1946/7, 1950/1 and 1953/4

Industrial area	Number of establishments			Gross value of output			Net value of output		
	1946/7	1950/1	1953/4	1946/7	1950/1 (R000)	1953/4	1946/7	1950/1 (R000)	1953/4
East London	150	286	283	10,900	26,180	33,234	5,774	11,876	14,338
Port Elizabeth and Uitenhage	338	593	631	71,210	152,578	178,842	26,814	55,404	69,734
Durban and Pinetown	918	1,154	1,356	112,740	227,872	295,928	49,168	85,628	113,226
Western Cape	1,501	1,873	1,855	149,920	269,498	333,054	69,016	116,962	149,382
Southern Transvaal (incl. Pretoria)	3,589	5,367	6,044	391,772	802,558	1,005,672	191,074	336,738	482,502
Combined totals for five major areas	6,496	9,273	10,169	736,542	1,478,686	1,846,730	341,846	606,608	829,182
TOTAL SOUTH AFRICA	11,413	15,125	16,443	891,622	1,781,516	2,281,556	402,098	720,176	994,720

Source: Figures supplied by the S.A. Bureau of Census and Statistics, Pretoria, and include statistics relating to the transport industry (group 19).

of the market mechanism pertaining to a freely competitive society, and it becomes obvious that the successful decentralization of industry in South Africa will result only from detailed and intelligent planning on a national level, in addition to material inducements such as rail subsidies and financial assistance.

Table 21

Statistics relating to the five major industrial areas expressed as percentages of S.A. totals

Area	Number of estabs.		Gross output		Net output	
	1946/7	1953/4	1946/7	1953/4	1946/7	1953/4
East London	1.3	1.7	1.2	1.5	1.4	1.4
Port Elizabeth and Uitenhage	2.9	3.8	8.0	7.8	6.7	7.2
Durban/Pinetown	8.3	8.3	12.6	12.9	12.2	11.4
Western Cape	13.1	11.3	16.8	14.6	17.2	15.0
Southern Transvaal	31.4	36.8	43.9	44.1	47.5	48.5
Combined percentage for major areas	56.7	61.9	82.5	80.9	85.0	83.5
TOTAL SOUTH AFRICA	100.0	100.0	100.0	100.0	100.0	100.0

It is evident however, that while Southern Transvaal's proportion of total South African industrial output increased between 1946/7 and 1953/4, there was a decline in the percentage of South Africa's total output accruing to the five major industrial areas combined. In 1946/7 these five areas accounted for 82.5 per cent of gross output and 85.0 per cent of net output for the nation as a whole, but the percentage figures had dropped to 80.9 per cent of gross output and 83.5 per cent of net output by 1953/4. Thus a very slight degree of decentralization did take place during the years in question, in spite of the fact that the major industrial areas appeared to have increased their grip on the industrial sector of the national economy in terms of the number of establishments. With the exception of the Southern Transvaal, each of the major industrial areas is centred upon the four leading ports of South Africa. This is to be expected, especially as any newly-developing country relies to a great extent on the importation of raw materials and machinery with which to initiate and maintain industrial progress. As the domestic output of raw materials and other industrial requisites increases, however, the natural trend would be for industries to concentrate in even larger proportions in the Southern Transvaal area, where raw materials, markets and resources of skilled labour and investment capital are close at hand, unless national economic policy

dictates otherwise.

In terms of its importance as an industrial centre, the Western Cape area appears to have lost more ground than any other of the five centres given in table 21, and at present the direction of new industrial development in South Africa is such that the Western Cape area is in some danger of receding further. The facts are that the Western Cape cannot offer prospective industrialists the same industrial facilities as are available in the Southern Transvaal and, for the present, it does not share with Natal and the Eastern Cape the dubious privilege of harbouring an emergent 'Bantustan'. Thus, it is unlikely that the industrial development of the Western Cape will receive much in the way of government assistance in the near future. Excluding the Southern Transvaal, the East London area is noticeably the only industrial centre shown in table 21 not to reveal a decrease in percentage contribution to either gross or net output of the Republic.

Indexes showing movements of gross output in the private industrial sectors of East London, Port Elizabeth/Uitenhage and South Africa as a whole have been plotted in figure 8 for the years 1946/7, 1950/1 and 1953/4. The actual index numbers are presented in table 22. The selection of 1946/7 as base year is in no way related to the performance of the nation's economy in that specific year, but has been made purely in an effort to illustrate the percentage rates of growth in the three industrial areas over the seven-year period.

Table 22

Indexes of gross output - private industrial sectors

Year	East London	Port Elizabeth and Uitenhage	South Africa
1946/7	100	100	100
1950/1	240	214	200
1953/4	305	251	256

The immediate impression gained from figure 8 is that of the high rate of growth in industrial gross output recorded for the East London area relative to the rates of growth shown for Port Elizabeth and South Africa as a whole. Any rate of growth should, however, be related to the actual value of output in the base year and these statistics detract somewhat from the seemingly remarkable performance of East London's industrial sector during

the period dealt with. In 1946/7, the value of gross output for East London's private sector totalled only R10, 900, 000 or 1.2 per cent of total gross output for South Africa, and had shown an increase of R22, 334, 000 by 1953/4. The 1946/7 valuation of Port Elizabeth/Uitenhage's gross output was R71, 210, 000 but this figure had increased by R107, 632, 000 by 1953/4. Thus, although East London achieved a higher percentage growth than did Port Elizabeth/Uitenhage during the period 1946/7-1953/4, in actual monetary terms the growth in output achieved by Port Elizabeth/Uitenhage was nearly five times as great as that recorded by East London. The fact remains, however, that not only does the growth rate given for East London exceed that shown for Port Elizabeth/Uitenhage, but the index curves illustrated in figure 8 indicate an increasing divergence between the two growth rates - this in spite of the rapid development seen during the post-war years in the motor industry in both Port Elizabeth and Uitenhage.

The census modifications of 1955/6[4] have made it difficult to carry the index numbers given in table 22 through to 1959/60, while retaining an acceptable degree of statistical comparability. Table 23, however, gives the 1956/7 and 1959/60 industrial statistics (private sectors) for East London, Port Elizabeth and South Africa - excluding the statistics relating to those firms concerned with the automotive industry as a whole.

Table 23

Industrial statistics (excluding the automotive industry) for East London, Port Elizabeth and South Africa - private sectors only - 1956/7 and 1959/60

Industrial area	Establishments		Gross output R000		Net output R000	
	1956/7	1959/60	1956/7	1959/60	1956/7	1959/60
East London	199	215	32,062	33,094	14,592	14,690
Port Elizabeth and Uitenhage	514	495	119,896	119,378	47,928	48,574
South Africa	12,168	14,308	2,481,220	2,959,450	1,005,936	1,245,663

Sources: 1956/7 statistics from Special Report no.240 of the South African Bureau of Census and Statistics. 1959/60 figures for East London and Port Elizabeth supplied by the Bureau in Pretoria. 1959/60 figures for South Africa from Special Report no.250 of the Bureau.

The exclusion of the automotive industry resulted in a marked decline in the number of establishments listed for all three areas in 1956/7 when compared with the number of establishments given for 1953/4 in table 20. Similarly, the 1956/7 gross output

FIGURE 8

INDEXES OF INDUSTRIAL GROSS OUTPUT – PRIVATE SECTORS ONLY
EAST LONDON; PORT ELIZABETH; SOUTH AFRICA
1946/7 TO 1958/4

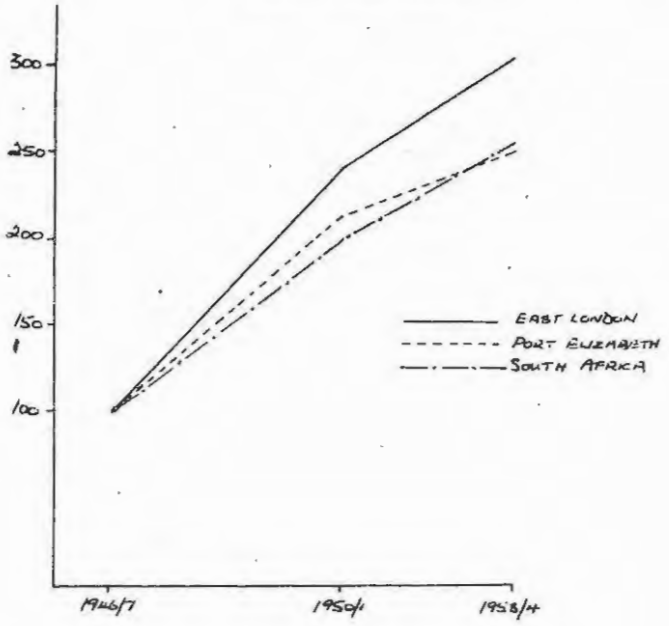
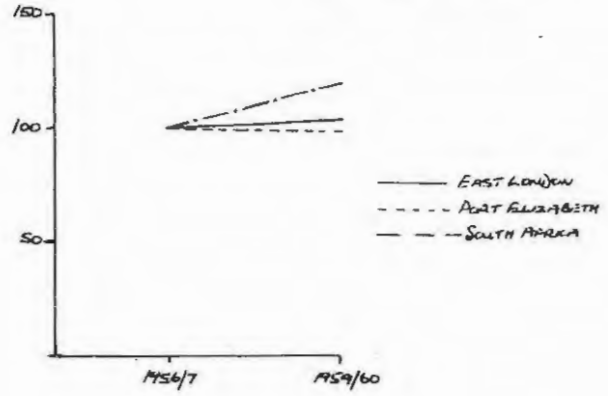


FIGURE 9

INDEXES OF INDUSTRIAL GROSS OUTPUT – PRIVATE SECTOR ONLY
EAST LONDON; PORT ELIZABETH; SOUTH AFRICA
1956/7 AND 1959/60



figures for East London and Port Elizabeth, and the net output figure for Port Elizabeth only, showed a decrease when compared with the 1953/4 statistics. For South Africa as a whole, however, the exclusion of the automotive industry did not result in a decrease in either gross or net output both of which showed remarkable increases in view of the reduced number of establishments. The 1956/7 net output figure for East London revealed a slight increase over the 1953/4 figure.

While table 23 records slight increases in the number of establishments and in both gross and net output for the private industrial sectors of East London and South Africa for the period 1956/7-1959/60, it is surprising to note the decline in the number of establishments and in the value of gross output recorded for Port Elizabeth/Uitenhage over the same period. These figures emphasise the importance of the automotive industry in Port Elizabeth/Uitenhage and it would appear that recent developments within the automotive industry in that area have taken place at the expense of other industries. The indexes of gross output for East London, Port Elizabeth/Uitenhage and South Africa are given in table 24 for the years 1956/7 and 1959/60, and the respective index curves have been plotted in figure 9.

Table 24

Indexes of gross output for East London, Port Elizabeth/ Uitenhage and South Africa - private industries only - 1956/7 and 1959/60

Year	East London	Port Elizabeth/ Uitenhage	South Africa
1956/7	100	100	100
1959/60	103	99	119

It is obvious that the rate of industrial growth in the late 'fifties throughout South Africa was not as rapid as in the immediate post-war decade, but the inclusion of the automotive industry would have increased the 1959/60 indexes for all three regions. When comparing the index numbers given in table 24 for the three areas it should be remembered that the automotive industry comprises a greater percentage of the total industrial output for both East London and Port Elizabeth than for South Africa as a whole.

Industrial development in the East London area

Statistical review 1945/6 to 1959/60

Table 25, which gives the principal statistics for the private industrial sector of the East London magisterial district for the

Table 25

Principal statistics of East London's private industrial sector - 1945/6 to 1959/60

Census year	Number of establishments	Value of land and buildings R000	Value of machinery, plant, tools R000	Employees White	Employees Non-white	Employees All races	Salaries and wages White R000	Salaries and wages Non-white R000	Salaries and wages All races R000	Value of gross output R000	Value of net output R000
1945/6	135	1,318	688	2,526	3,798	6,324	1,582	766	2,348	9,162	5,080
1946/7	131	1,502	1,272	2,590	3,806	6,396	1,704	824	2,528	10,446	5,484
1947/8	175	1,878	1,554	2,928	4,165	7,093	2,006	938	2,944	12,116	5,704
1948/9	206	2,432	2,210	3,235	4,918	8,153	2,392	1,146	3,538	14,246	6,986
1949/50	228	2,754	2,670	3,436	5,220	8,656	2,656	1,250	3,906	17,310	8,116
1950/1	240	3,606	3,748	3,682	6,091	9,773	3,086	1,456	4,542	21,868	9,568
1951/2	232	4,180	4,302	3,622	5,693	9,315	3,358	1,404	4,762	22,424	9,888
1952/3	239	5,498	4,756	3,761	6,063	9,764	3,690	1,552	5,242	26,498	11,706
1953/4	234	6,658	8,040	3,765	6,464	10,229	4,090	1,830	5,920	28,134	12,826
1954/5	232	7,718	9,568	3,763	6,798	10,547	4,354	1,986	6,340	30,460	13,132
1955/6	x	x	x	x	x	x	x	x	x	x	x
1956/7	205	x	x	3,433	8,187	11,620	4,374	2,346	6,720	33,718	15,358
1957/8	x	x	x	x	x	x	x	x	x	x	x
1958/9	x	x	x	x	x	x	x	x	x	x	x
1959/60	223	6,308 (8,770)	6,050 (13,934)	3,567	8,356	11,932	5,076	2,820	7,896	35,376	15,774

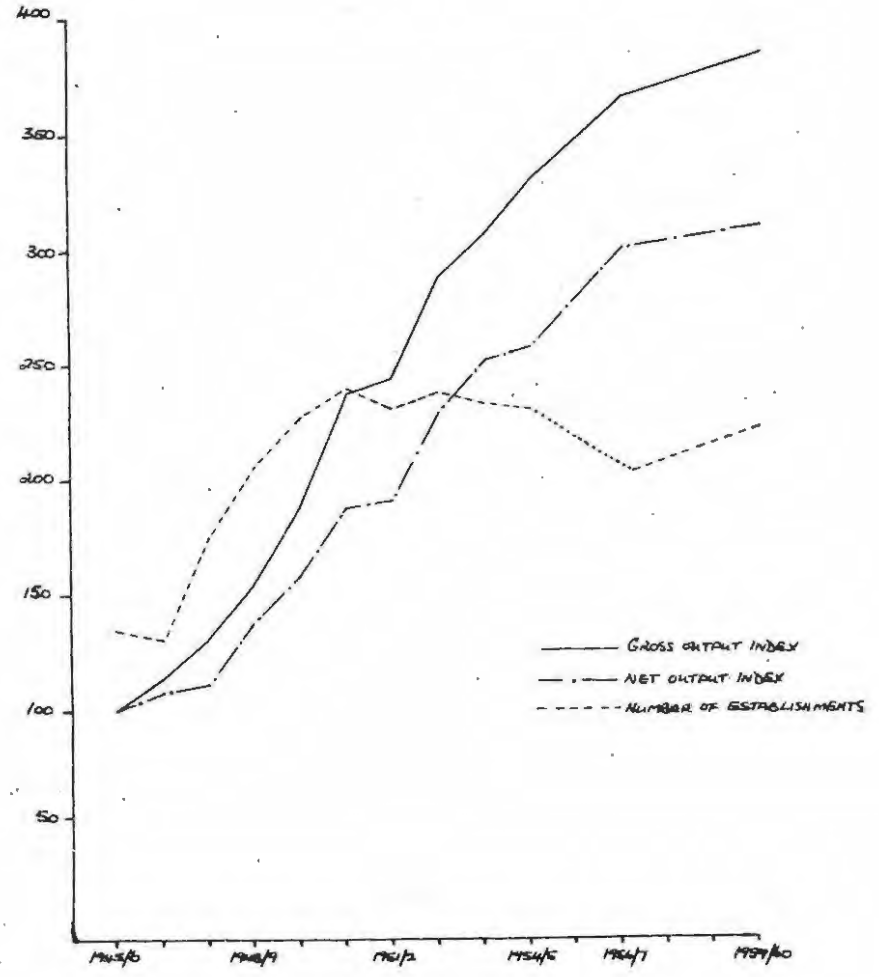
Source: Figures for 1945/6-1954/5 and 1959/60 based on statistics supplied by the Bureau of Census and Statistics, Pretoria. Figures for 1959/60 are preliminary. 1956/7 figures are based on statistics published in Special Report no.240 of the Bureau.

Note: The statistics supplied by the Bureau have been modified to allow for comparability throughout the years indicated. Thus the years 1945/6-1954/5 now exclude the transport industry (group 19) while the official industrial returns for the years 1956/7 and 1959/60 have been modified to include data relating to those establishments which fall within the orbit of the automotive industry census but which do not fall under group 19.

FIGURE 10

A) INDEXES OF GROSS AND NET OUTPUT — EAST LONDON PRIORITY INDUSTRIAL SECTOR : 1945/6 TO 1959/60

B) ACTUAL NUMBER OF ESTABLISHMENTS — EAST LONDON PRIORITY INDUSTRIAL SECTOR : 1945/6 TO 1959/60



years 1945/6 to 1959/60, provides the basic framework for much of the analysis which follows. In order to allow for a continuous pattern of statistical comparability, all statistics relating to major-industry group 19, the transport industry, have been excluded from this analysis and the transport industry will be dealt with in a separate section of this study. The figures shown in table 25 will be analysed below under the appropriate column headings.

Number of establishments

The value of the fluctuations in the actual number of industrial establishments in any given area can very easily be over-emphasised when considering industrial growth. The addition of one large manufacturing concern may be sufficient to off-set the removal of, say, ten or twenty small companies whose operations only just fall within the orbit of the industrial census. A large textile mill, for example, may well be the equivalent of twenty ice-cream factories in terms of gross or net output. It is noticeable, however, that the greatest period of growth in the number of industrial establishments in the East London area coincides with the major growth phases in both gross and net output, as revealed in figure 10, which indicates the index curves for gross and net output and the actual number of establishments pertaining to East London's private industrial sector for the period 1945/6-1959/60. During this period, the number of private industrial establishments in East London reached a maximum in the year 1950/1. This point was achieved after a remarkable period of progress and industrial growth in the years immediately following the Second World War, relative to the lack of industrial activity which had previously characterised the economic history of the East London area. In 1946/7 the number of private industrial establishments in the East London area stood at a total of 131, but by 1950/1 this figure had increased to 240. Figure 10 shows the period 1946/7 to 1950/1 to have been the most significant phase in the growth of output for East London's industrial sector as well. Several factors may be regarded as having influenced the promising rate of growth experienced in East London in the years immediately after the Second World War. The most important of these contributory factors was the great increase in consumer demand which followed the relaxation of war-time controls. The post-war boom, coupled as it was with a period of reconstruction and short supply in the manufacturing

centres of Europe, had a particular significance on the pattern of industrial growth in South Africa as a whole, as the increased demand for commodities had to be met, to a great extent, by the products of domestic industry. East London's industrial sector, then, derived its first important stimulant from the post-war spending 'spree'. The first five years after the war saw a fantastic increase in the value of wool and, as the greater part of East London's hinterland is given to sheep farming, it is not surprising that the general level of economic activity in East London took its most significant leap forward during these years. The post-war boom, however, was achieved in South Africa at the expense of monetary stability. Vast sums of 'hot' money flowed in from the money markets of Europe and in particular from the United Kingdom, and these inflationary pressures resulted in serious balance-of-payments difficulties in 1949, which could only be resolved by the devaluation of sterling, credit restrictions and import controls.[5]

These controls and restrictions led to greater stability and consolidation on the industrial front, and their influence on the pattern of industrial development in East London can be seen in the fact that the number of establishments fell off to a limited degree after 1950/1. Thus the slight decrease in the number of establishments which characterises the end of the boom period can be attributed to the disappearance of the 'mushroom' companies which could thrive only under conditions of inflation and artificial demand. A slight downswing in East London's industrial cycle for the year 1951/2 resulted from a year of recession, initiated by a reduction in consumer demand, inventory disinvestment and a fall-off in prices of primary products, such as wool. After the 1951 recession, a period of consolidation was evident in economic activity in South Africa as a whole, but although the industrial output of East London showed substantial increases during the years following 1951/2, the actual number of establishments failed to keep pace. It is in fact very noticeable that, for the years after 1951/2, the number of establishments bears no relationship whatsoever to the growth in output of East London's industrial sector in general.

The dotted section (between the years 1954/5 and 1956/7) of the curve showing the actual number of establishments in figure 10, indicates a slight disruption in comparability in the statistics recorded for the years before and after 1954/5, due to the

removal from the Industrial Census returns of those establishments engaged primarily in repair and service work.[6] Thus, a large percentage of the decrease shown in the number of establishments between 1954/5 and 1956/7 can be attributed to census modifications. It could be argued, however, that the 207 establishments given for 1956/7 present a truer reflection of industrial activity in East London than do the statistics given for previous years, as the establishments omitted after 1955/6 hardly warranted classification as 'industries' in the strict sense of the word. The curve has been continued after 1956/7 to indicate the actual increase in the number of establishments up to 1959/60.

Gross and net output, and materials used[7]

The values of gross and net output of the East London private industrial sector are shown in graphic form in figure 11 for the years 1928 to 1960. During the period since the census year 1945/6, the value of gross output increased by over R26,000,000, while the corresponding increase in the value of net output amounted to R10,680,000. The gross and net output indexes for the period 1945/6 to 1959/60 indicate an increase of 286 per cent in gross output and 211 per cent in net output during the post-war period. Gross and net output indexes for the years 1945/6 to 1959/60 are given in table 26, with 1945/6 taken as base year.

Table 26

Indexes of gross and net output
1945/6=100

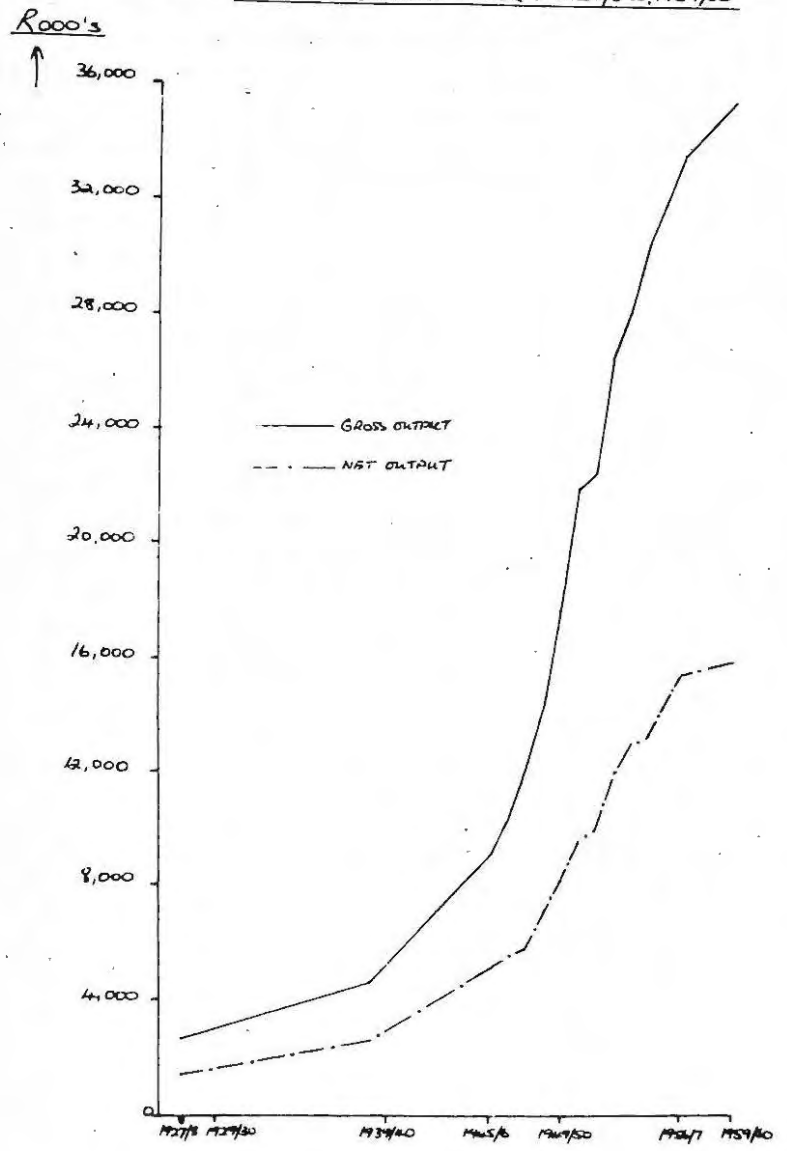
Year	Gross output	Net output
1945/6	100	100
1946/7	114	108
1947/8	132	112
1948/9	155	138
1949/50	189	159
1950/1	238	188
1951/2	245	192
1952/3	289	230
1953/4	308	252
1954/5	332	259
1955/6	x	x
1956/7	368	302
1957/8	x	x
1958/9	x	x
1959/60	386	311

('x' indicates figures not available.)

The values of gross and net output, and the relationship between the two, vary from industry to industry, according to the value of materials used and the amount of work done during the

FIGURE 11

VALUE OF GROSS AND NET OUTPUT – EAST LONDON
PRIVATE INDUSTRIAL SECTOR : 1927/8 TO 1959/60



process of production. It is generally conceded, however, that gross output can be regarded as the more useful economic indicator of the value of any specific industry or establishment to the area it serves, though the importance of any specific area or community as a productive unit could more reliably be gauged from the value of its net output.

Throughout the statistical analysis contained in this study, changes in the value of money must be taken into consideration. Monetary statistics have not been weighted according to fluctuations in the value of money and recorded increases are thus likely to be somewhat misleading. This does not affect the validity of inter-regional or inter-industry comparisons, but only comparisons within a specific industry or region over a given period of time. The extent to which changes in the value of money have influenced the pattern of industrial growth in East London, as depicted in this study, may be gauged from the following comparisons between the values of gross and net output for 1945/6 and 1959/60 calculated at price levels prevailing in these years, and the values of gross and net output for the same years weighted in accordance with the changing values of money as estimated from the rise in the wholesale price index for South African goods.

At current prices, the value of gross output for the East London private industrial sector rose from R9.2 million in 1945/6 to R35.4 million in 1959/60, representing an increase of 286 per cent (net output showed an increase of 211 per cent for the same period). During this period, however, the wholesale price index for South African goods rose from 65.7 (1946) to 112.3 (1960),[8] with 1953 as base year. Table 27 compares gross and net output of East London's private industrial sector at current prices with what they would have been had the value of money remained constant at the 1953 price level.

Table 27

Gross and net output at current and constant prices 1945/6 to 1959/60

	At current prices R000,000	At 1953 prices R000,000
a) Gross output:		
1945/6	9.2	14.0
1959/60	35.4	31.6
Percentage increase on 1945/6	286	127
b) Net output:		
1945/6	5.0	7.6
1959/60	15.8	14.6
Percentage increase on 1945/6	211	92

Thus, in real terms, the percentage increase in the gross output of East London's private industrial sector should be reduced from 286 per cent to 127 per cent for the period 1945/6 to 1959/60. In the same way, after allowing for changes in the value of money, the percentage increase in net output decreases from 211 per cent to 92 per cent. Although the weighted figures show considerable reductions, the percentage increases in both gross and net output still indicate a period of creditable growth and industrial expansion with gross output more than doubling itself during the fifteen-year period. Moreover, it must be remembered that these adjusted percentages in no way alter comparisons made between the respective growth rates of East London, Port Elizabeth and South Africa as a whole, as the gross output values for Port Elizabeth and South Africa are subject to adjustment as well.

Movements in the gross and net output indexes for East London, given in table 26, have been plotted in figure 10. The first and most obvious factor emerging from a study of these figures is the decline in net output expressed as a percentage of gross output - the extent of the decline being indicated by the increasing divergence between gross and net output - from 55.5 per cent in 1945/6 to 44.6 per cent in 1959/60.

Table 28

Net output as a percentage of gross output 1945/6-1959/60

Year	Gross output	Net output
1945/6	100	55.5
1946/7	100	52.5
1947/8	100	47.1
1948/9	100	49.0
1949/50	100	46.9
1950/1	100	43.7
1951/2	100	44.1
1952/3	100	44.2
1953/4	100	45.6
1954/5	100	43.1
1955/6	x	x
1956/7	100	45.6
1957/8	x	x
1958/9	x	x
1959/60	100	44.6

('x' denotes figures not available.)

Since net output approximates to the actual value added to the materials used during the manufacturing process, it must be concluded that, while expansion has increased in tempo in East London's industrial sector since 1945/6, the real productive capacity of industry has not kept pace with the gross or overall

output of the industrial sector. For South Africa as a whole, industrial net output amounted to 46 per cent of gross output in 1945/6, 44 per cent in 1953/4 and 43 per cent in 1959/60. Thus the percentage decrease of net output in relation to gross output was more marked in the East London sector than in South Africa as a whole. There is nothing particularly remarkable in the fact that net output of industry decreases in relation to gross output with an expanding industrial economy, as it is to be expected that industrial growth beyond the primary stages of production leads to greater inter-industry flows of materials and semi-processed goods. The fact that the divergence between gross and net output for the East London sector is greater than the national mean, can be explained in terms of East London's geographic situation. The lack of raw materials in East London's natural hinterland necessitates a high degree of importation of raw and semi-processed materials and precludes the existence of large-scale heavy industries or basic primary industries within the area; and the fact that East London is one of the nation's major ports has, to a certain extent, encouraged the development of industries specifically requiring imported materials, which are then processed or assembled (as in the case of the automotive industry) on sites in East London. The inter-industry flow of materials will account for a large percentage of gross output in any area which has a limited source of raw materials.

It would, therefore, be of some interest to relate the value of 'materials used' to the value of gross output. Table 29 presents a comprehensive summary of statistics, giving the total value of materials used, the value of imported materials and the value of materials used as a percentage of gross output. Unfortunately, however, statistics relating to the value of imported materials are not available for the census years 1956/7 and 1959/60. Comparing the last column of table 29 with the figures given in table 28 the value of materials used, expressed as a percentage of gross output, is at a maximum for those years in which net output is at its lowest in relation to gross output - i.e., in the years 1950/1, and 1954/5. Conversely, the value of materials used, expressed as a percentage of gross output, is at its lowest figure in the years in which net output is at a maximum in relation to gross output - i.e., 1945/6. Over the whole period, 1945/6 to 1959/60, the value of net output decreased from 55.5 to 44.6 when expressed as a percentage of gross output, while the value

of materials used, expressed as a percentage of gross output, showed an increase of from 43 per cent in 1945/6 to 55 per cent in 1959/60.

Table 29

Statistics relating to materials used : 1945/6-1959/60

Year	Total value of materials used R000	Value of imported materials R000	Percentage of imported materials	Materials used as a percentage of gross output
1945/6	3,970	2,144	54	43
1946/7	4,710	2,776	59	45
1947/8	6,114	3,564	58	50
1948/9	7,120	3,698	52	50
1949/50	8,808	4,536	51	51
1950/1	11,836	6,224	53	54
1951/2	11,994	5,970	50	53
1952/3	14,172	6,116	43	54
1953/4	14,508	6,344	44	52
1954/5	16,298	7,256	44	54
1955/6	x	x	x	x
1956/7	17,872	x	x	53
1957/8	x	x	x	x
1958/9	x	x	x	x
1959/60	19,470	x	x	55

('x' indicates statistics not available.)

Source: Figures supplied by the Bureau of Census and Statistics, Pretoria.

Note: These statistics have been modified to allow for comparability over the period as a whole - vide Appendix 'A' and the footnote to table 25.

Table 29 reveals a marked decrease in the value of imported materials in relation to the value of all materials used by East London's private industries. The percentage of imported materials used was at a maximum for the whole period 1945/6 to 1959/60 during the immediate post-war years, 1945/6 to 1948/9, when industrial expansion increased in tempo following on the rapid upsurge in consumer demand. It is inevitable that any newly-developing country relies, in the initial stages of its industrial development, upon the extensive importation of plant and raw materials in order to sustain its industrial output. As the natural resources of the country concerned become more fully exploited, so it can be expected that the percentage of imported materials will show a marked decrease. In South Africa, the developments which have taken place in recent years in the production of mineral, chemical and agricultural raw materials, have enabled industrialists throughout the country to obtain an ever-increasing percentage of their raw material needs on the local market. This trend has been evident in the East London area, where the percentage of imported materials used decreased from 59 per cent

in 1946/7 to 44 per cent in 1954/5. (Unfortunately, comparable statistics are not available for more recent years.) Other factors which will influence the pattern of raw material imports centre on the extent of the domestic market and the supply of natural resources. Although South Africa is well-endowed with natural resources, the domestic market is, at present, very limited, and the limitations thus imposed on the scale of operations in this country's industrial sector in general is likely to hinder the production of semi-processed raw materials of, for example, a chemical nature, for some time to come.

The marked decrease in the value of imported materials in relation to the value of all materials used from 58 per cent in 1948 to 52 per cent in 1949 and 51 per cent in 1950, can be attributed partly to the monetary controls imposed in 1948/9 in order to restore equilibrium in the country's balance-of-payments. A slight upswing in the percentage value of imported materials recorded for 1950/1 resulted from a temporary relaxation of controls in that year and the inventory boom which preceded the Korean War, and gave rise to rapid increases in the price of wool. The increases in imports in 1951 led, however, to a severely adverse trade balance for this year in the country's balance-of-payments statistics and necessitated a reduction in the value of imports in the ensuing years.

Accepting the fact that there is an ever-increasing divergence between gross and net output, the two output curves for the East London area, given in figures 10 and 11, reveal very similar growth patterns. It is noticeable, however, that deflections from a continuous upward growth curve for gross output become more exaggerated when plotting the net output curve. This trend emphasises the increasing reliance on inter-industry flows of semi-processed materials, and is not peculiar to industry in East London only. There is, however, one outstanding year - 1954/5 - in which the pattern of growth set by the gross output curve is not emulated by the net output curve. In this year, the gross output curve reveals a slight upswing while net output tends to level off, whereas in the previous year, net output showed a slightly higher rate of growth than did gross output. These movements can be explained in terms of the fluctuations in the percentage value of materials used given in the last column of table 29. The value of materials used expressed as a percentage of gross output decreased from 54 per cent in 1952/3 to 52 per

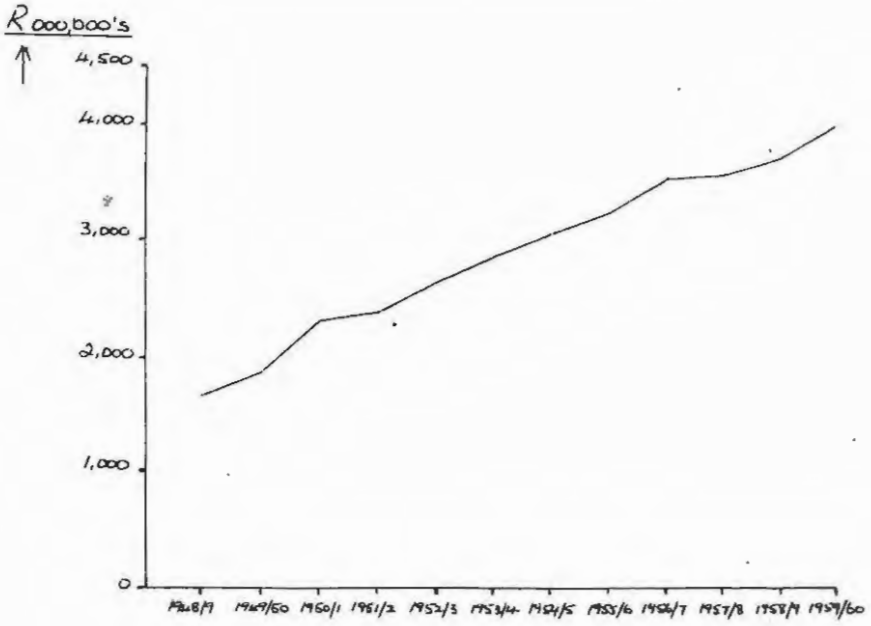
cent in 1953/4 but increased to 54 percent once more in 1954/5. Any fall in the value of materials used, expressed as a percentage of gross output, can be expected to result in a proportionately higher increase in net output - and vice versa. Thus the percentage fall in the value of materials used for 1953/4 increased the relative value of net output, while the rise in the percentage value of materials used in 1954/5 reduced from the ratio of net output to the value of gross output.

During the post-war period, 1946 to 1960, the gross and net output curves give evidence of two slack periods in productive activity in East London. These slack periods occurred during the year 1951 and in the period 1956/7 to 1959/60. The entire pattern of growth in East London's industrial sector since 1945 can, however, be related closely to macro-economic factors which influenced the pattern of economic development throughout South Africa during these years. The major growth phase in East London's industrial expansion, 1947-1950, can be attributed to the post-war boom and the establishment of two of East London's largest industries, textile and automotive. The slight recession evidenced by a relative decline in output for 1951/2 must be attributed to the nation-wide decline in economic activity, assisted by the collapse of a few small 'mushroom' industries, rather than to the collapse of major industries in the East London area only. The second slack period in the rate of industrial expansion in East London can be related to a deterioration in South Africa's balance-of-payments situation engendered by political uncertainty and a period of disinvestment on the part of overseas financiers upon whom the nation has depended and will continue to depend for a large percentage of its investment capital. Thus the adverse balance-of-payments situation in recent years has been particularly severe on capital account.[9]

That the fluctuations in the level of industrial activity in East London over the years 1945/6 to 1959/60 can be related to macro-economic factors influencing the pattern of development throughout South Africa as a whole can be seen from a brief glance at the curve in figure 12 which illustrates movements in the net national income figures for South Africa over the years 1948/9 to 1959/60. Clearly, the growth pattern revealed by the net national income curve in figure 12 is very similar to the pattern set by the gross output curve for East London's private industrial sector given in figure 10.

FIGURE 12

VALUE OF NET NATIONAL INCOME
SOUTH AFRICA : 1948/9 TO 1959/60



It should be noted that statistics relating to gross and net output for the East London area after 1954/5 are not strictly comparable with statistics relating to output for those years prior to 1954/5, since a number of establishments, concerned primarily with repair and service work, were removed from the main body of the industrial census returns in 1955/6.[10] Although their removal became immediately evident in terms of the actual number of establishments operating in the East London area, its effect proved to be of only minor importance in terms of gross and net output, which continued to expand during the years 1954/5 to 1956/7. Thus it has been considered unnecessary to present the output curves in figures 10 and 11 in the form of discontinuous or dotted lines for the years in question, as was done in figure 10 in the curve showing the actual number of establishments.

Figure 10 indicates that industrial establishments in the East London private sector have intensified their output since 1950/1, since this increased substantially though their number did not. In fact, the number of establishments existing in 1959/60 stood at 223 whereas the 1950/1 level registered 240 establishments. This tendency towards a larger scale of production by fewer enterprises is emphasised by table 30 which gives the average gross and net output per industrial establishment in the East London area for the years 1945/6 to 1959/60.

Table 30

Average gross and net output per establishment
R000 - 1945/6 to 1959/60

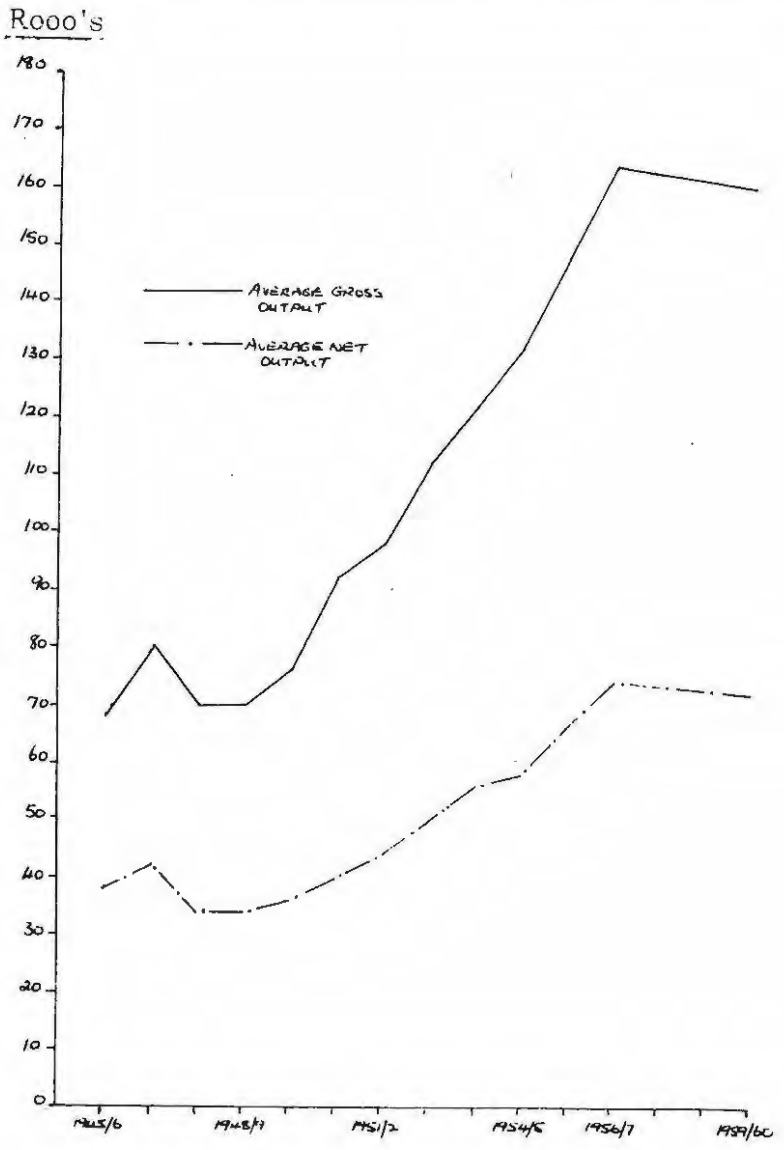
Year	Average gross output	Average net output
1945/6	68	38
1946/7	80	42
1947/8	70	35
1948/9	70	35
1949/50	76	36
1950/1	92	40
1951/2	98	44
1952/3	112	50
1953/4	122	56
1954/5	132	58
1955/6	x	x
1956/7	164	74
1957/8	x	x
1958/9	x	x
1959/60	160	72

('x' indicates statistics not available.)

The curves relating to the statistics given in table 30 have been plotted in figure 13. The first major trend revealed by both average output curves is to be found in the absolute decline in

FIGURE 13

AVERAGE GROSS AND NET OUTPUT PER ESTABLISHMENT — EAST LONDON PRIVATE INDUSTRIAL SECTOR : 1945/6 TO 1959/60



the value of gross and net output per establishment during the years 1946/7 to 1948/9. This decline in average output coincides with the period of greatest growth in the actual number of establishments in the East London area, which rose from 131 in 1946/7 to 206 in 1948/9, thereby indicating the emergence of a considerable number of small firms during the years of prosperity and expansion immediately after the Second World War. The total productive output of industry in the East London area was spread out among a relatively large number of concerns, several of which were profiting from the false atmosphere of prosperity generated by inflationary pressures which resulted from large inflows of foreign capital and an excess of consumer demand.

Table 31 indicates a slowing down in the rate of growth in terms of the actual number of establishments operating in the East London area during the second half of the first post-war decade. During the first half of this decade, however, the rate of growth in terms of output was not able to keep pace with the rise in the actual number of establishments. Thus, in the initial years of the post-war boom, the majority of industries in East London were not enjoying the full economies associated with scale of enterprise and it was not until the mid-'fifties, when the effects of the period of consolidation in the tempo of economic activity had taken their toll of smaller establishments, that the scale of production in East London showed a substantial improvement. On average, the gross output of each industrial establishment in East London increased from R92,000 in 1948/9 to an optimum production peak of R164,000 in 1956/7.

Table 31

Date of commencement of establishments

Year	Number of estabs.	Year	Number of estabs.
1945/6	8	1950/1	10
1946/7	16	1951/2	12
1947/8	21	1952/3	12
1948/9	25	1953/4	12
1949/50	24	1954/5	2

(Statistics relating to years after 1954/5 are not available.)

Source: South African Bureau of Census and Statistics, Pretoria.

The second outstanding trend indicated by figure 13 is the absolute decline in average gross output and average net output per establishment recorded for the years 1956/7-1959/60. The

number of establishments increased from 205 in 1956/7 to 223 in 1959/60, but the decline in average output must be attributed to a slackening-off in productive activity in general rather than any extraordinary increase in the number of industrial concerns - unlike the first phase of declining average output, when both gross and net output experienced their maximum growth rates for the period as a whole. The phenomenon of a declining average output per industrial establishment is in direct conflict with the accepted economic norm, coming as it does at a comparatively advanced stage in East London's industrial development. The usual pattern of development is one of an increasing scale of output in each productive unit - the survival and expansion of the vigorous firms and the downfall of the 'mushroom' enterprises. The low level of economic activity experienced by East London during the years 1956/7-1959/60 was, however, sufficient to disrupt the normal pattern of economic behaviour. But the industrial sector of South Africa as a whole experienced a declining rate of growth in output per establishment during these years - the average gross output for South African industry rose from R78,000 per establishment in 1946/7 to R204,000 per establishment in 1956/7, giving an annual increase of R12, 600 per establishment, but from 1956/7 to 1959/60 average gross output increased by only R3, 000 per establishment, giving an annual increase of R1, 000.

Value of physical assets (land, buildings, machinery, plant and tools)

The rise in the value of land, buildings, machinery, plant and tools in the East London industrial area during the period 1945/6 to 1959/60 was remarkable, even allowing for a gradual decline in the value of money and the periodic revaluation of property. Table 25 shows that the value of land and buildings only rose from R1, 318, 000 in 1945/6 to an estimated value of R8, 770, 000 in 1959/60, representing an increase of R7, 452, 000 or 566 per cent. The value of machinery, plant and tools rose from R688,000 in 1945/6 to an estimated value of R13, 934, 000 in 1959/60, representing an increase of R13, 246, 000 or 1, 825 per cent. The rise in the value of land and buildings was fairly uniform over the fifteen-year period, with no outstanding increases in any one year. In the case of machinery, plant and tools, however, a steady increase up to 1952/3 was suddenly accelerated in 1953/4 with an increase of R3, 284, 000 in their value recorded for that

year alone. An attempt will be made, in the more detailed analysis by industrial group classification which follows this chapter, to isolate the specific industrial group responsible for this marked increase in the value of machinery, plant and tools.

It will be seen that table 25 records two separate valuations for both land and buildings and machinery, plant and tools for the East London industrial area for the year 1959/60. The official census figures for this year are given without brackets, but these returns do not include the value of physical assets pertaining to the electricity supply station, which generates power from East London for the major part of the Border Area. Since the statistics relating to the value of physical assets for years prior to 1959/60 have been presented in table 25 to include the values of physical assets pertaining to the electricity power station, it is obvious that the census returns for 1959/60 in columns 2 and 3 of table 25 are singularly misleading. For this reason it was decided to present two sets of statistics for the value of physical assets for the year 1959/60, and the figures given in brackets include the respective values of land and buildings and machinery, plant and tools pertaining to the power station. That the exclusion of statistics relating to the value of physical assets of the power station for the year 1959/60 considerably influences the over-all picture for that year, can be gauged from the fact that the value of land and buildings for the power station accounts for 28 per cent, and the value of machinery, plant and tools for 57 per cent of their respective totals for the East London industrial area as a whole for 1959/60. If the value of the physical assets of the power station were subtracted from the 1954/5 statistics given in table 25 the following set of comparative statistics would be arrived at:

Table 32

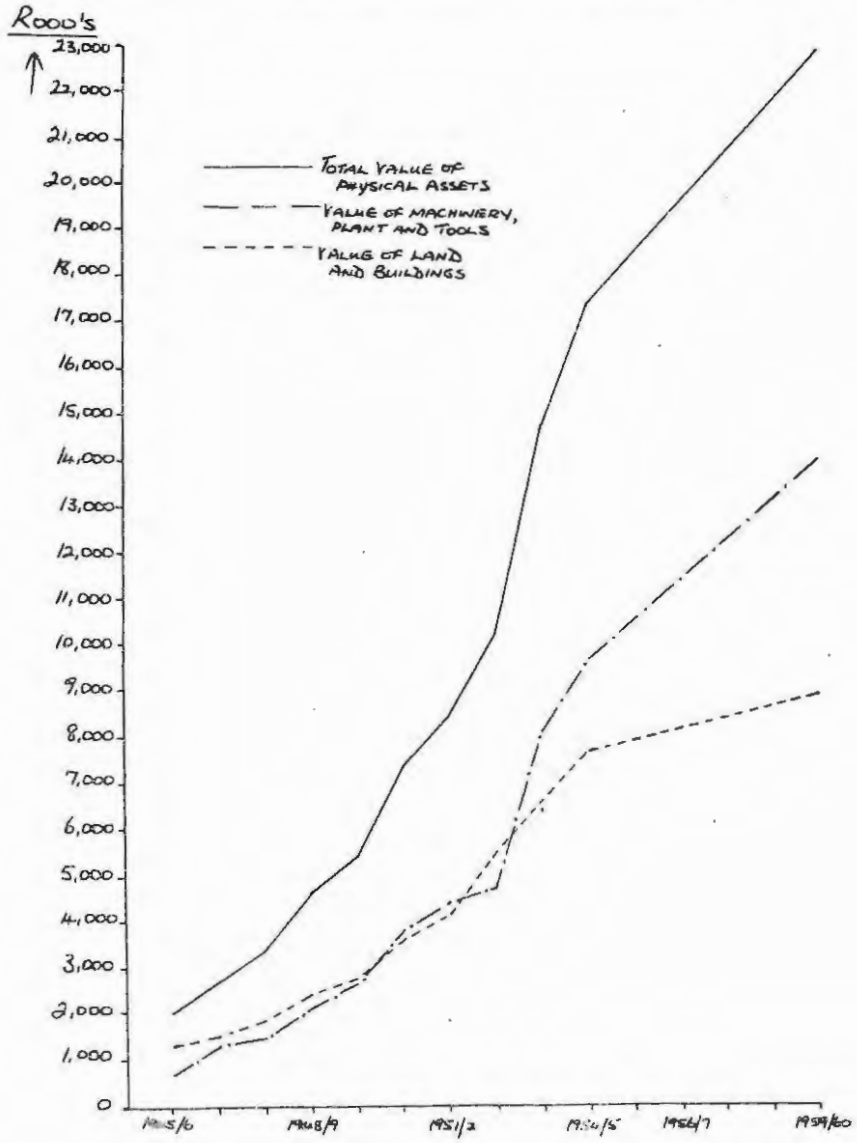
Value of physical assets excluding figures pertaining to the electricity supply station 1954/5 and 1959/60

Year	Value of land and buildings R000	Value of machinery, plant and tools R000	Total value of all assets R000
1954/5	6,204	4,682	10,886
1959/60	6,308	6,050	12,358

Thus substantial growth took place in the value of physical assets in the East London industrial sector even without the addition of the power station statistics, although figure 14 will reveal that such growth was slightly less rapid than the growth

FIGURE 14

VALUE OF PHYSICAL ASSETS — EAST LONDON PRIVATE INDUSTRIAL SECTOR: 1945/6 TO 1959/60



rate shown for the period 1951/2 to 1954/5.

It is significant that for the years after 1952/3, the value of machinery, plant and tools is considerably greater than the value of land and buildings. The rate of growth in the value of machinery, plant and tools suggests a more intensive use of capital in the production of manufactured commodities in the East London area. The whole question of the relationship between capital and labour in the development of industry, which will be analysed in more detail at a later stage, is one of considerable importance to East London, since one of the few apparent industrial resource assets existing in the area is an abundant supply of cheap but unskilled labour. If, however, industrialists choose not to make the fullest use of such labour, then location in East London would be of no great advantage.

Figure 14 illustrates the rising values of physical assets in the East London private industrial sector over the period 1945/6 to 1959/60, with separate curves drawn to illustrate the increasing values of a) land and buildings: b) machinery, plant and tools only: and c) the combined totals of 'a' and 'b'. The figures for the combined totals are given below in table 33. For the year 1959/60, the figure given in table 33 includes the value of the physical assets pertaining to the electricity supply station.

Table 33

Combined values of land, buildings, machinery, plant, etc. - 1945/6 to 1959/60 - R000

Year	Value	Year	Value
1945/6	2,006	1951/2	8,482
1946/7	2,774	1952/3	10,254
1947/8	3,432	1953/4	14,698
1948/9	4,642	1954/5	17,686
1949/50	5,424		
1950/1	7,354	1959/60	22,704

It is noticeable that the value of physical assets in the East London industrial area rose most sharply in the years 1951/2 to 1954/5, and that the period of greatest growth in terms of physical assets does not correspond with the period of greatest growth in output - vide: figure 10. The reasons for the sharp increase in the value of physical assets during these years will be analysed in the next chapter, but it is unexpected that such growth in physical assets should take place in spite of a reduction in the rate of growth of output. Figure 14 reveals a definite slackening-off in the rate of growth in the value of land and buildings in the East London industrial area during the period 1954/5

to 1959/60, but this tendency can be explained in terms of the lean period experienced by East London in respect of entirely new developments on the industrial front during the last few years of the whole period under review, and in terms of the 'removal' of several smaller concerns from the list owing to census modifications.

The trend towards a greater capital-intensity in production techniques in the East London area is evidenced by the graph showing the average value per industrial establishment of land, buildings, machinery, plant and tools. The graph is illustrated in figure 15 and the average values are set out in table 34 below. Once again, it should be pointed out that the figures given for the years 1954/5 and 1959/60 include the values of physical assets pertaining to the power station.

Table 34

Average value per establishment of physical assets 1945/6 to 1959/60 - R000

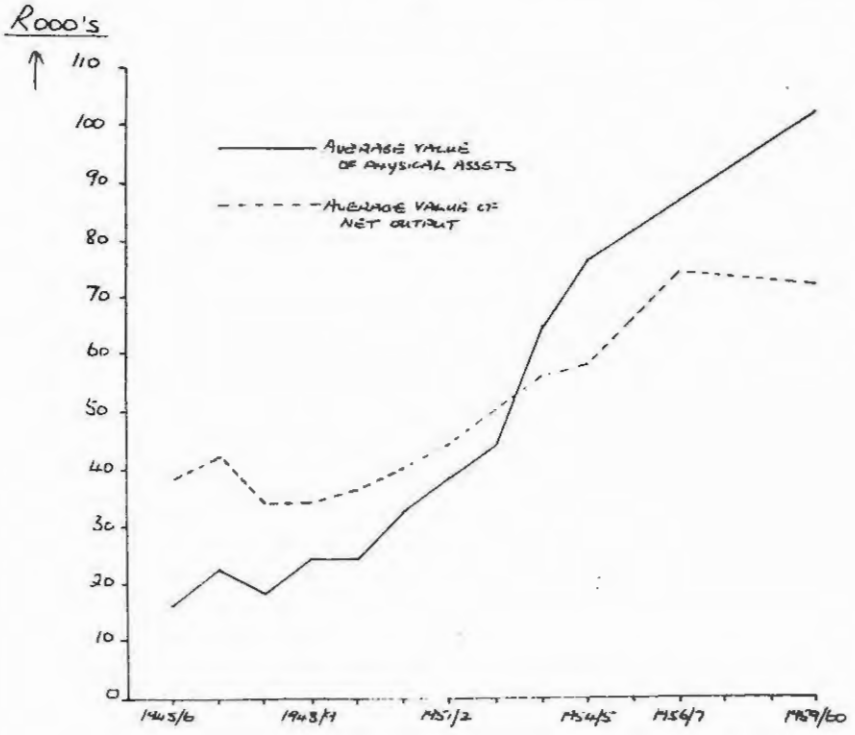
Year	Average value	Year	Average value
1945/6	16	1951/2	38
1946/7	22	1952/3	44
1947/8	18	1953/4	64
1948/9	24	1954/5	76
1949/50	24		
1950/1	32	1959/60	102

Apart from a minor setback in 1947/8, the average value per establishment of land, buildings, machinery, plant and tools has risen steadily since 1945/6. In fact, the average value had more than quadrupled itself by 1954/6 and by 1959/60 had increased by well over 500 per cent. It is true that property revaluations have influenced the changing values of land and buildings, and a rising price level has added to the value of machinery and plant in monetary terms, but the annual depreciation of physical assets should also be taken into account. Notwithstanding the above qualifications, the extent to which industry in the East London area has become highly capitalised is nevertheless deserving of special comment.

If the question is analysed in terms of output, by relating the value of physical assets to the value of net output, the result is even more remarkable than the bare figures in table 34 would suggest. In figure 15 the curve giving the average value of physical assets per establishment has been drawn alongside the curve showing the average value per establishment of net output,

FIGURE 15

AVERAGE VALUE PER ESTABLISHMENT OF PHYSICAL ASSETS - EAST LONDON PRIVATE INDUSTRIAL SECTOR 1945/6 TO 1959/60



and it can be seen that, from 1953/4 onwards, the average value of physical assets is above that of net output. Such a situation leads one to suppose either that industry in the East London area is becoming over-capitalised, or that the returns to be gained from capital investment in industrial enterprises in the area have diminished in relation to scale. The average value of gross output (figure 13) remains well above the average value of physical assets, but it is value added, or net output, that largely determines financial returns on outlay. The increase in capital intensity will, at a later stage, be related to industrial labour statistics in order to compare the relative importance of both capital and labour in East London's industrial economy, but it should be mentioned here that the vast surplus of unskilled labour existing in the East London area is likely to create severe problems of unemployment, unless the position is retrieved by the establishment of large industries of the labour-intensive sort.

The declining average value of physical assets shown in table 34 and figure 15 for the year 1947/8, corresponds with the declining average value in output, as indicated in figure 13, and can be attributed to the emergence during the post-war boom years of a number of small concerns with limited reserves of capital.

Salaries and wages

Although a detailed analysis of employment and labour problems in the East London industrial area has been reserved to a specific section of this study, any analysis of salaries and wages is rendered meaningless without some reference to employment trends. Table 25 indicates that between 1945/6 and 1959/60 the total number of employees in the East London private industrial sector increased from 6,324 persons to 11,923 persons, representing an increase of 5,599 employees or 88 per cent. The number of white employees rose from 2,526 in 1945/6 to 3,567 in 1959/60, giving an increase of 1,041 persons or 41 per cent, while the number of non-white employees increased from 3,798 in 1945/6 to 8,356 in 1959/60, representing an increase of 4,558 persons or 120 per cent. Expressed as a percentage of total industrial employees, the non-white industrial labour force rose from 60 per cent in 1945/6 to 70 per cent in 1959/60, while the percentage of white employees fell from 40 per cent in 1945/6 to 30 per cent in 1959/60.

The above statistics illustrate the rapidly increasing indus-

trial potential of the non-white labour force, and if these statistics are related to the apparent tendency in industry in East London towards an increasing use of more capital-intensive techniques, then the further implication must be that a rising number of non-whites are being employed in semi-skilled capacities, for instance as machine operatives. More detailed enquiries into the racial composition of East London's industrial labour force have indeed revealed that a growing number of non-whites are finding employment as machine operatives, packers, etc.

In spite of the substantial rise, both in actual numbers and in relation to total employment figures, of the non-white industrial labour force in East London over the period 1945/6 to 1959/60, the salaries and wages statistics show disproportionate rates of growth in per capita earnings of white as against non-white employees. Salaries and wages paid to white employees rose from R1,582,000 in 1945/6 to R5,076,000 in 1959/60, while the corresponding figure for non-white employees rose from R766,000 in 1945/6 to R2,820,000 in 1959/60. (Statistics taken from table 25.) Table 35 illustrates the lack of proportion in salary scales as between whites and non-whites when related to employment levels.

Table 35

Increases in employment and salaries and wages: whites and non-whites 1945/6-1959/60

Year	Employment		Salaries and wages R000	
	Whites	Non-whites	Whites	Non-whites
1945/6	2,526	3,798	1,582	766
1959/60	3,567	8,356	5,076	2,820
Actual increase	1,041	4,558	3,594	2,054
Per cent increase	41	120	221	268
1945/6	2,526	3,798	1,582	766
1954/5	3,763	6,798	4,354	1,986
Actual increase	1,237	3,000	2,772	1,220
Per cent increase	49	79	175	159
1954/5	3,763	6,798	4,354	1,986
1959/60	3,567	8,356	5,076	2,820
Actual increase	-196	1,558	722	834
Per cent increase	-5	23	17	42

Thus, although for the whole period 1945/6 to 1959/60, the percentage increase in the number of non-whites employed was nearly three times as great as the corresponding increase in the number of whites employed, the percentage increase in non-white salaries and wages was only slightly greater than the percentage increase in wages and salaries paid to white employees, and in actual monetary terms, the increase in non-white earnings

was considerably less than the corresponding increase shown in table 35 for whites. When the whole period under review is broken down into two phases, 1945/6-1954/5 and 1954/5-1959/60, the lack of proportion in the earnings of whites as against non-whites is at a maximum during the first phase, when the ratio between white and non-white salary and wages increases was 175:159, in spite of the fact that the corresponding ratio in terms of employment was calculated at 49:79. The statistics for the second phase, 1954/5 to 1959/60, reveal a more favourable trend in terms of non-white wage increases, in that both the actual and percentage increases in non-white wages and salaries were greater than the corresponding increases in white earnings, although it should be pointed out that there was an absolute decline in the level of white employment in industry in East London over these years.

The vast differences between the earnings of the two broad racial groups comprising East London's industrial labour force can aptly be illustrated by a brief analysis of per capita wages and salaries. Table 36 gives the fluctuations in both white and non-white per capita salaries and wages while figure 16 plots such fluctuations in graphic form.

Table 36

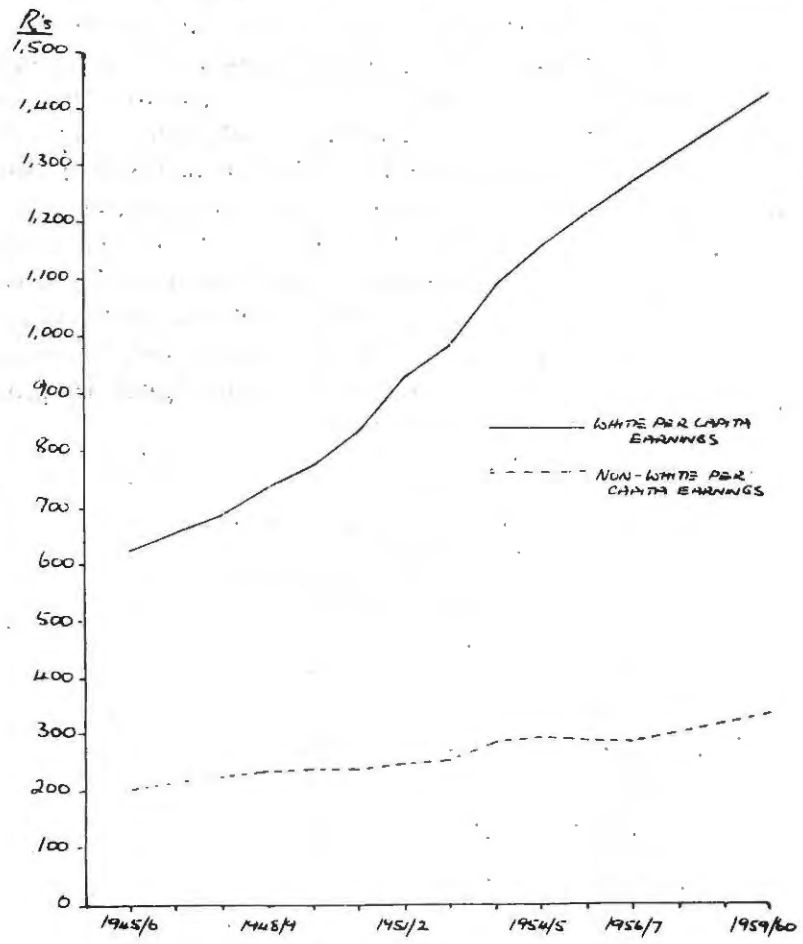
Per capita wages and salaries - whites and non-whites 1945/6 to 1959/60

Year	Per capital wages and salaries	
	Whites R	Non-whites R
1945/6	624	202
1946/7	659	216
1947/8	686	224
1948/9	733	234
1949/50	774	240
1950/1	838	240
1951/2	926	246
1952/3	982	256
1953/4	1,086	284
1954/5	1,159	292
1955/6		
1956/7	1,274	286
1957/8		
1958/9		
1959/60	1,424	338

Figure 16 clearly illustrates the increasing divergence between white and non-white salary scales. The level of per capita wages and salaries for white industrial employees in the East London area increased from R624 per annum in 1945/6 to R1,424 per annum in 1959/60, while non-white per capita wages and salaries rose from R202 in 1945/6 to only R338 in 1959/60, and

FIGURE 16

RELATIONSHIP BETWEEN WHITE AND NON-WHITE PER CAPITA WAGES AND SALARIES – EAST LONDON PRIVATE INDUSTRIAL SECTOR : 1945/6 TO 1959/60



it is obvious that a traditional pattern of wage differentiation exists in the East London area, in spite of rising costs of living, the higher degrees of industrial skill achieved by certain sections of the non-white labour force and the urgent need to stimulate the domestic market by increasing the purchasing powers of the non-whites. Over the period 1954/5-1956/7 there was an absolute decline in the level of per capita wages and salaries paid to non-white industrial workers, though it is true that for the last few years, 1956/7 to 1959/60, the rate of growth in non-white per capita earnings was higher than that shown for any other phase of the period as a whole.

The extent of the apparent wage differentiations prevailing in East London's industrial sector can be gauged from a brief study of comparative figures for East London and Port Elizabeth for the year 1956/7.

Table 37

Per capita earnings - East London and Port Elizabeth private industrial sectors only - 1956/7

	Whites			Non-whites		
	Number employed	Total wages/ salaries R000	Per capita earnings R	Number employed	Total wages/ salaries R000	Per capita earnings R
East London	3,433	4,356	1,274	9,187	2,346	286
Port Elizabeth	9,866	13,940	1,412	25,560	10,132	396

The per capita earnings for all races in East London in 1956/7 was R578 and the corresponding figure for Port Elizabeth was R680. Thus the industrial earnings for both whites and non-whites in Port Elizabeth in 1956/7 were considerably in advance of earnings in East London. But perhaps even more significant is the difference in the ratios between white and non-white earnings per capita for the two areas. The ratio for Port Elizabeth for 1956/7 was 3.6:1 (whites:non-whites) while in East London the ratio was as high as 4.4:1, in spite of the fact that white salaries in East London were considerably lower than in Port Elizabeth. To some extent, the marked wage differentiations existing in East London, when compared with Port Elizabeth, can be justified in terms of lower levels of productivity and an absence of training and commitment to an industrial environment among the less-skilled workers in the East London area. But in those industries in which the non-white labour force has received adequate training and has achieved a level of productivity that compares favourably with other industrial centres in South Africa,

it would be exploiting the labour position to maintain wages at a minimum level merely to perpetuate the principle of wage differentiation in East London and thereby attempt to provide industrialists with an incentive for locating themselves in the East London area. In the long run it is obvious that the full market potential of the hinterland of East London can never be realised until the level of wages paid to the non-whites has increased substantially. Wages paid to non-white industrial workers are, however, higher than the amounts earned by non-whites in most other occupations and given the low level of productivity attained by the majority of peasant farmers in the rural economy, it cannot be denied that the non-white industrial workers of East London enjoy a higher standard of living than do the rural dwellers in the surrounding districts. It should be emphasised, moreover, that in any economy, the existence of large reserves of labour results in a low wage level. Thus it can be expected that a relatively low level of wages will prevail in the East London area while large numbers of potential workers remain unemployed.

Motive power and fuel costs

Although statistics relating to the use of motive power and to fuel costs in East London's industrial sector are readily available only up to 1953/4, a brief analysis of these statistics is presented below to illustrate the rapid increase in the use of capital equipment in East London industry during the post-war years. Fluctuations in the use of motive power in East London followed a pattern similar to that revealed by the gross and net output graphs in figures 10 and 11. This pattern shows a steady increase in the use of motive power until 1951/2 when the total horse power and the number of establishments utilizing motive power decreased. This decrease corresponds to the slump in output recorded for the same year. The percentage of industries in the East London area using motive power in some form or another remained relatively constant over the nine-year period, standing at 93 per cent in 1946/7 and 91 per cent in 1953/4.

Approximately 75 per cent of the total horse power used in East London is put out of steam turbines for the generating of electric current. So high a percentage would present a misleading picture of motive power used by the manufacturing and construction industries and the statistics given in table 38 exclude those relating to the electric power station in order to present a more realistic analysis of motive power. The number of engines

generating motive power in East London increased from 1,389 in 1946/7 to 3,369 in 1953/4 and the output of horse power increased from 8,105 to 15,609 during the same years. Thus there was an increase of almost 50 per cent in the use of motive power in East London during these years. Table 38 indicates that electric motors, run on purchased electric power, provide the predominant source of industrial power in East London, with the increase in the use of electric motors being facilitated by the extensions made to the Escom power station in the period after 1948.

Table 38

Motive power statistics, 1946/7 and 1953/4

Year	Total estabs.	Total engines	Total H.P.	Electric motors (purchased power) Estabs.	Engines	H.P.	Percentage of total H.P.
1946/7	122	1,389	8,105	103	1,349	7,540	93.3
1953/4	213	3,369	15,608	177	3,271	15,013	96.2

Source: Statistics supplied by the Bureau of Census and Statistics, Pretoria.

Note: The above figures exclude statistics relating to the transport industry and to the electricity supply station.

Since such a large proportion of motive power consumed by East London's industrial sector is generated by electric current, it is not surprising that an equally large proportion of fuel costs can be attributed to the combined costs of coal and electricity. The fact that East London is some six to seven hundred miles away from the nearest source of mined coal results in a high cost of coal and thus a high cost of electricity. In spite of the high cost of purchased electric power, it would appear from the statistics given that it is still more economical for industries to buy power than to generate their own. The high cost of electric power nevertheless must be considered as one of the disadvantages of industrial location in East London. Appendix 'D' shows that the cost of coal in East London is more than three times the pit-head price, the result entirely of transportation and handling costs. Thus, a more equitable railage rate on coal

Table 39

Fuel costs - 1945/6 to 1953/4

Year	Cost of coal R	Cost of electricity R	Total fuel cost R	Coal used (in tons)
1946/7	84,476	22,079	123,339	61,942
1953/4	247,378	87,155	392,302	127,188

would considerably reduce industrial overheads in East London by at least halving the cost of fuel.

Table 39 gives a brief analysis of fuel costs in East London's industrial sector, and indicates the high percentage of total fuel costs that can be attributed to the cost of coal.

REFERENCES

1. Union Statistics for 50 years, 1910-1960, Table L, p.3, published by S.A. Bureau of Census and Statistics.

2. The final chapter of this book contains a more detailed discussion on the concept of 'border area' development.

3. Owing to the industrial census modifications of 1955/6, the effects of which are discussed in detail in Appendix 'A', it is difficult to maintain an acceptable degree of statistical comparability in a table covering the entire period 1946 to 1960. Thus it has been necessary to compare the rate of industrial growth achieved by East London since the Second World War with the corresponding growth rates of other industrial regions in two distinct phases - 1946/7-1953/4 and 1956/7-1959/60. The statistics for the period 1946/7-1953/4 include those relating to the automotive industry while the figures for 1956/7 and 1959/60 (given in table 23) exclude statistics relating to the automotive industry. The introduction of a separate automotive industry census in 1955/6 presents the main obstacle to statistical comparability, but although this obstacle could have been removed by omitting the automotive statistics for all years from 1946 to 1950, the task would have been considerable and the results misleading in the case of the Port Elizabeth/Uitenhage complex, in which the motor industry plays so great a part.

4. Vide: Appendix 'A'.

5. Vide: Franzsen, D.G., Economic Growth and Stability in a developing Economy, van Schaik (1960), Chaps. 1 and 3.

6. Vide: Appendix 'A'.

7. By definition ex Special Report no. 240 of the Bureau of Census and Statistics, p.2. Gross output represents:

'the sum of: 1) sales of own manufactures.
2) work done.
3) value of buildings, equipment etc., manufactured, erected, constructed, etc., by industrialists for their own use and capitalized,
4) subsidies received,
5) closing stocks of manufactures and work-in-progress, minus the sum of: 1) excise duty paid; 2) opening stocks of manufactures and work-in-progress.'

Net output represents 'the amount left after deducting from the value of "gross output" the aggregate of the cost of materials and fuel, light and power used and the amount paid for work given out. The residual figure represents the value to materials by the process of production.'

Materials used: 'The value of materials used has been calculated by adding the value of the opening stocks to, and deducting the value of the closing stocks from, the purchases of materials.'

8. S.A. Reserve Bank, Quarterly Bulletin of Statistics, no.61, September 1961, p.24.

9. Vide: S.A. Reserve Bank's Quarterly Bulletin of Statistics, no.61, September 1961, p.38.

10. Vide: Appendix 'A'.

Chapter 4

MAJOR INDUSTRIAL GROUPS

There are two reasons for an analysis by industrial groups. In the first place it allows more detailed comment on the trends outlined and, secondly, it permits the isolation of various growth sectors within East London's private industrial economy. A detailed study of these follows this chapter.

The list below gives the twenty-three headings under which the South African Bureau of Census and Statistics now classifies the major industrial groups.[1]

Major group	Type of establishment
1	Production of foodstuffs
2	Beverage industries
3	Tobacco industries
4	Textiles
5	Manufacture of footwear, other wearing apparel and made-up textile goods
6	Manufactures of wood and cork, except furniture
7	Manufacture of furniture and fixtures
8	Paper and paper products
9	Printing, publishing and allied industries
10	Manufacture of leather and leather products, excluding footwear
11	Manufacture of rubber products
12	Manufacture of chemicals and chemical products
13	Products of petroleum and coal
14	Non-metallic mineral products, except those from petroleum and coal
15	Basic metal products
16	Metal products, except machinery and transport equipment
17	Manufacture of machinery, except electrical machinery
18	Manufacture of electrical machinery, apparatus and supplies
19	Manufacture of transport equipment
20	Miscellaneous manufacturing industries[2]

21 Construction industries
22 Electricity, gas and steam
23 Personal services.[3]

Number of establishments by group classification

Table 40 indicates the growth in the number of private industrial establishments in the East London area according to this classification between 1945/6 and 1959/60. During the first growth phase, covering the four years from 1945/6 to 1948/9, there was an increase in the number of establishments in each group principally, at this stage, in construction (group 21) and foodstuffs (groups 1 and 2), which increased from 12 to 39 and from 25 to 33 respectively. As this period represents the major growth phase in East London's industrial development as a whole, it is not surprising that two such basic industries should reveal rapid expansion. Marked expansion also took place in the engineering, metal and wood products industries, all of which can be attributed to the general period of development. On the whole, the overall pattern of expansion is continued, though on a lesser scale, during the next phase, 1948/9 to 1951/2. In spite of the fact that 1951/2 must be regarded as a recessional year in the level of economic activity, there was no remarkable reduction in the actual number of establishments. The construction industry continued to show rapid growth and group 17 (machinery) increased from 3 to 8 establishments. In terms of the number of establishments, however, the food industry remained static during this second phase. The only substantial decrease was registered by the basic metal industries (groups 15 and 16) which fell from 20 to 13 establishments, having reached a peak of 26 in 1949/50, but it must be pointed out that in the 1950 reclassification of industries by the Bureau of Census and Statistics, plumbing concerns were removed from the metal and engineering groups and placed in group 21 (construction). In 1950/1 there were as many as 11 plumbing concerns operating in East London. Thus, the reduction in the number of establishments in groups 15 and 16 is misleading, as is the rise recorded for group 21.

The number of establishments in each industrial group remained fairly static for the period 1951/2-1954/5 and the total number remained at 232. However, groups 6 (wood), 16 (metal) and 18 (electrical) showed slight increases, while the food, clothing and non-metallic mineral products industries revealed slight decreases. In spite of interim fluctuations, the construction and

Table 40

East London private industrial sector - number of establishments by group classification 1945/6 to 1959/60

Group	1945/6	1946/7	1947/8	1948/9	1949/50	1950/1	1951/2	1952/3	1953/4	1954/5	1955/6	1956/7	1957/8	1958/9	1959/60
1, 2	25	27	31	33	34	35	33	31	30	30	-	30	-	-	31
13, 20, 22	10	10	11	14	13	15	14	17	19	15	-	8	-	-	13
4, 10, 11	8	8	8	8	7	8	8	9	11	9	-	11	-	-	10
5	9	6	10	12	14	15	16	17	17	13	-	14	-	-	18
6	4	4	4	8	8	10	10	12	12	14	-	13	-	-	15
7	7	6	9	10	8	8	8	9	9	7	-	8	-	-	6
8, 9	6	6	6	7	8	8	8	9	9	8	-	8	-	-	9
12	10	10	10	11	12	10	11	11	11	11	-	13	-	-	12
14	14	14	17	20	19	20	20	19	15	16	-	15	-	-	13
15, 16	15	15	19	20	26	12	13	14	15	16	-	11	-	-	11
17	2	2	2	3	5	10	11	11	11	11	-	6	-	-	3
18	8	7	11	13	17	19	18	20	19	21	-	11	-	-	18
21	12	10	29	39	49	59	51	50	45	51	-	50	-	-	54
23	5	6	8	8	9	11	11	10	11	10	-	7	-	-	10
Totals	135	131	175	205	228	240	232	239	234	232		205			223

Source: Figures for the years 1945/6 to 1954/5 and for 1959/60 supplied by the Bureau of Census and Statistics, Pretoria. Figures for 1956/7 contained in Special Report no.240 of the Bureau.

Note: The above statistics have been modified to allow for comparability throughout the period 1945/6-1959/60. Thus group 19 (transport industry) has been omitted, and the figures for the years 1956/7 and 1959/60 have been revised to include those concerns which were removed to the separate Motor Census in 1955/6 but which were not listed under group 19.

miscellaneous industry groups remained at a constant level over the period as a whole.

Most of the fluctuations in number of industrial establishments during the years 1954/5 to 1956/7 may be attributed directly to the census modifications adopted in 1955/6.[4] Such modifications reduced the degree of statistical comparability by removing those 'industries' which manufactured mainly for consumption on the premises or were primarily concerned with repair and service operations, and affected principally the industries previously listed under major-groups 17, 18, 20 and 23. The operations concerned were the repairing of boots and shoes, watches, electrical appliances, office machinery, etc., which can hardly be regarded as true industrial operations. Apart from the changes due to census modifications the position in 1956/7 remained relatively constant, with a decline of five establishments in group 16 as the only other noteworthy fluctuation.

The final phase of the fifteen-year period under review, 1956/7 to 1959/60, is one of general growth, though on a minor scale in terms of establishments as well as output. Substantial increases in number were registered by the clothing (14-18 establishments), electrical machinery (11-18) and miscellaneous (8-13) industries, while other groups to reveal slight increases were the construction (group 21), personal services (group 23) and wood products (group 6) industries. Groups 17 and 14 recorded the major decreases.

Table 41 presents a detailed classification of private industrial establishments in East London for the years 1946/7, 1950/1 and 1959/60, giving a breakdown by major-group and sub-group. The breakdown into sub-groups facilitates a closer look at the types of industries which have experienced fluctuations during the post-war years. The year 1950/1 has been included in table 41 as it represents the peak year of East London's post-war development in terms of the number of establishments.

In the food industry the most significant increases occurred in the establishments processing meat, fruit and vegetables, with the fruit canning industry well to the fore. Decreases were evident in the grain mill products and confectionery industries, though these sub-groups still dominate the food industry as a whole in terms of output. Although there was a slight fluctuation in the number of beverage industries, a fairly wide variety of beverages is today manufactured or bottled in East London.

Table 41

Detailed classification of industrial establishments - East London magisterial district - private sector - 1946/7, 1950/1, 1959/60

Major group	Sub-group	Description	Establishments 1946/7	1950/1	1959/60
1		Food industries (except beverages)			
	201	Slaughtering, preparation and preserving of meat	2	4	5
	202	Manufacture of dairy products	3	3	3
	203	Canning and preserving of fruits and vegetables	1	1	5
	205	Manufacture of grain mill products	4	6	2
	206	Manufacture of bakery products	5	7	7
	208	Manufacture of cocoa, chocolate and sugar confectionery	4	4	1
	209	Manufacture of prepared feeds for animals and poultry	2	4	3
	20X	Manufacture of miscellaneous food preparations	2	1	2
		Total group 1	23	30	28
2		Beverage industries			
	213	Breweries	-	-	1
	214	Soft drinks and carbonated water industries	4	5	2
		Total group 2	4	5	3
4		Manufacture of textiles			
	230	Preparation of fibres	1	1	-
	231	Spinning, weaving and finishing of textiles	2	2	3
	232	Knitting mills	-	1	1
	239	Manufacture of textiles not elsewhere classified	-	-	1
		Total group 4	3	4	5
5		Manufacture of footwear, other wearing apparel and made-up textile goods			
	243	Manufacture of wearing apparel, except footwear	6	13	11
	244	Manufacture of made-up textile goods, except wearing apparel	-	2	3
		Total group 5	6	15	14
6		Manufacture of wood and cork, except furniture			
	250	Manufactures of wood and cork, except furniture	4	10	15
		Total group 6	4	10	15
7		Manufacture of furniture and fixtures			
	260	Manufacture of furniture and fixtures	6	8	6
		Total group 7	6	8	6

Major group	Sub-group	Description	Establishments 1946/7	1950/1	1959/60
8		Manufacture of paper and paper products			
	272	Manufacture of articles of pulp, paper and paperboard	-	1	3
		Total group 8	-	1	3
9		Printing, publishing and allied industries			
	280	Printing, publishing and allied industries	6	7	6
		Total group 9	6	7	6
10		Manufacture of leather and leather products, excluding footwear			
	292	Manufacture of leather products, except wearing apparel	1	1	-
		Total group 10	1	1	-
11		Manufacture of rubber products			
	300	Rubber products	4	3	5
		Total group 11	4	3	5
12		Manufacture of chemicals and chemical products			
	311	Basic industrial chemicals	1	1	1
	313	Soaps and other washing and cleaning compounds, and candles	2	2	2
	314	Paints, varnishes and lacquers	2	3	3
	319	Manufacture of miscellaneous chemical products	5	4	6
		Total group 12	10	10	12
13		Manufacture of products of petroleum and coal			
	322	Coke works	-	1	-
	329	Miscellaneous products of petroleum and coal	1	1	1
		Total group 13	1	2	1
14		Manufacture of non-metallic mineral products, except products of petroleum and coal			
	331	Manufacture of structural clay products	6	9	4
	332	Manufacture of glass products	2	3	3
	339	Manufacture of non-metallic mineral products not classified elsewhere	6	8	6
		Total group 14	14	20	13
15		Basic metal industries			
	341	Iron and steel basic industries	1	1	-
		Total group 15	1	1	-

Major group	Sub-group	Description	Establishments 1946/7	1950/1	1959/60
16		Metal products, except machinery and transport equipment			
	350	Metal products except machinery and transport equipment	14	11	11
		Total group 16	14	11	11
17		Manufacture of machinery, except electrical machinery			
	360	Manufacture of machinery, except electrical machinery	2	10	3
		Total group 17	2	10	3
18		Manufacture of electrical machinery, apparatus, appliances and supplies			
	370	Manufacture of electrical machinery, apparatus, appliances and supplies	7	19	18
		Total group 18	7	19	18
20		Miscellaneous manufacturing industries			
	392	Manufacture of photographic and optical goods	-	1	2
	394	Repair of watches and clocks	-	1	-
	395	Manufacture of jewellery and related articles	2	2	1
	397	Toys, sporting and athletic goods and novelties	1	3	1
	399	Manufacturing industries not elsewhere classified	4	4	6
		Total group 20	7	11	10
21		Construction			
	400	Construction	10	59	54
		Total group 21	10	59	54
22		Electricity, gas and steam			
	511	Electricity, light and power	1	1	1
	512 & 513	Gas manufacture and distribution: steam, heat and power	1	2	1
		Total group 22	2	3	2
23		Personal services			
	844	Personal services	6	11	14
		Total group 23	6	11	14
		GRAND TOTAL (ALL GROUPS)	150	286	223

Source: Bureau of Census and Statistics, Pretoria.

Thus the three concerns listed in group 2 for 1959/60 are each responsible for the output of more than one brand product. The textile industry benefited during the post-war period by the establishment of one spinning and one knitting concern, while the clothing and made-up textile sectors gave evidence of considerable development up to 1959/60. The increase in numbers in group 5 did not, however, result in any large expansion of output for this industry and the majority of these establishments operate on a very small scale. Similarly in group 6 (wood products) the rapid increase in numbers was not matched by the industry's gross output statistics, and 10 of the 15 establishments listed for group 6 in 1959/60 came under the heading of sawmills, carpentry and joinery works, none of which rank as large-scale concerns.

Although there was no increase in the number of establishments in group 9 (printing), the increase in output given in table 42 for groups 8 and 9 results largely from increased activity in the printing sector and not so much from the establishment of three concerns within group 8 (paper products). Group 11 (rubber products) is dominated by vulcanizing works, and the statistics given for group 12 (chemical products) clearly indicate the relative absence of concerns manufacturing for the industrial market and the predominance of firms manufacturing for the consumer market, especially pharmaceutical products. There were no major fluctuations in the number of establishments operating under groups 10, 11, 12, 13, 14 and 15, but in group 16 (metal products) there was a reduction of three. The increase in group 18 (electrical machinery) resulted from increased activity in the field of electrical contracting and can be related to the increased number of construction firms. The majority of appliance dealers and service establishments were removed from the general industrial census returns in 1955/6 and are not, therefore, reflected in the 1959/60 returns for group 18.

The increase in the number of establishments in group 20 (miscellaneous industries) can be attributed to a small rise in the number of photographic and optical goods concerns and in the number of signwriting firms, while the reductions shown in 1959/60 for sub-groups 394, 395 and 397 resulted largely from the 1955/6 census modifications. Rapid increases in the number of building, decorating and plumbing concerns contributed towards the large number of establishments listed under the con-

struction industry (group 21) for 1959/60. The peak level of activity within the construction industry was, however, reached in 1950/1, when both the number of establishments and gross output were at a maximum for the whole period 1945/6-1959/60. In the personal services industries (group 23) major increases in the number of establishments took place in the sector which includes laundries, dyeing and dry-cleaning. In 1946/7 this sector was included in the general returns for the textile and clothing industries and was listed as having a total of only three establishments. This total had risen to 10 by 1959/60.

Gross and net output

Tables 42 and 43 give the value of gross and net output for major-industry groups in the East London private industrial sector for the years 1946/7, 1950/1, 1953/4, 1956/7 and 1959/60. It is proposed to analyse the movements in gross and net output on an industrial group basis in the four phases of development as presented in these tables.

Phase 1 (1946/7-1950/1)

During the first phase of development both gross and net output increased considerably in each group or combined groups of industries. From every angle, then, it is clear that the immediate post-war period presents itself as the most striking growth phase in the history of East London's industrial development. Particularly rapid growth was achieved during this phase by the foodstuff, chemical products and construction industries (groups 1, 12, 21) and it is clear even at this stage of development that these three industrial sectors, together with the textile industry, whose expansion in this first phase of growth was only slightly less marked than that shown by the above three groups, were emerging as the leading industrial sectors in East London. In terms of both gross and net output, the foodstuff industry ranks as the most important major group in East London.

Phase 2 (1950/1-1953/4)

The remarkable rate of growth shown during phase 1 was not maintained during the second phase in East London's post-Second World War development. A slight but nevertheless apparent tendency for output to diminish in its rate of growth has been noted in figure 10 for this period as a whole and can be attributed in large measure to the general recession experienced in 1951/2 when both gross and net output levelled off considerably. The greatest decrease in output was experienced by the construction

Table 42

Value of gross output by industrial groups 1946/7 to 1959/60

Group	1946/7	1950/1	1953/4	1956/7	1959/60
1, 2	3,198	6,264	8,272	11,204	14,286
3, 13, 20, 22	364	674	1,214	400	294
4, 10, 11	1,698	2,480	4,320	5,760	6,170
5		428	410	354	458
6	748	548	632	612	686
7		628	550	610	664
8, 9	432	600	878	1,102	1,330
12	1,524	3,502	5,346	6,324	2,550
14	282	418	456	602	456
15, 16		1,094	1,380	1,446	2,212
17	1,068	646	296	950	
18		708	1,160	1,636	2,356
21	1,132	3,650	2,938	2,384	3,602
23		232	280	300	312

Table 43

Value of net output by industrial groups 1946/7 to 1959/60

Group	1946/7	1950/1	1953/4	1956/7	1959/60
1, 2	1,472	2,224	2,608	3,506	4,770
3, 13, 20, 22	200	342	574	232	160
4, 10, 11	748	864	2,338	3,218	3,696
5		252	196	154	210
6	368	182	280	212	260
7		394	318	332	350
8, 9	346	436	606	732	866
12	836	1,632	2,630	3,208	1,202
14	218	300	340	360	266
15, 16		698	842	1,000	1,056
17	726	204	218	292	
18		314	384	774	1,102
21	574	1,532	1,268	1,102	1,592
23		196	242	246	242

Source: Gross and net output statistics for the years 1946/7, 1950/1, 1953/4 and 1959/60 were supplied by the Bureau of Census and Statistics, Pretoria. Figures for 1956/7 taken from Special Report no.240 of the Bureau.

Note: The above statistics have been modified to allow for comparability throughout the period 1946/7 to 1959/60 - see footnote to table 40 and Appendix 'A'.

In several cases, it has been necessary to combine various groups of industries. These combinations were necessitated in the first instance by the fact that the secrecy regulations of the Bureau prohibit the publication of vital statistics for those industrial groups in which there are less than four concerns, and secondly, by the Census modifications of 1950/1, which made it impossible to establish an exact correlation between the two systems of group classification. For example, in 1959/60 there were only three establishments in group 17 and for this year group 17 has been combined with groups 15 and 16. For details relating to the 1950/1 modifications see Appendix 'A'.

industry in which gross output fell by R712,000 during this phase. Other industrial groups to reveal an absolute decline in gross output were groups 5, 7, and 17, but group 17 showed a slight increase in the value of its net output, although the rate of growth diminished in relation to the rate of growth achieved by this industry during the initial phase. The construction industry has always been regarded as a sound indicator of the level of economic activity in any area, and it is usually among the first industries to receive a setback in times of economic stress. It will be seen later, however, that the construction industry has been the least stable of all the more important industrial sectors in the East London area and it is difficult to reconcile the growth pattern revealed by the construction industry with the general pattern of post-war development in East London's industrial sector as a whole.

All other industrial groups gained in both gross and net output during this second development phase, with the textile industry (group 4) in particular achieving a remarkable rate of growth in terms of net output - from R864,000 in 1950/1 to R2,338,000 in 1953/4. Substantial rates of growth in terms of gross output were shown by the food, textile, chemical products, electrical machinery and miscellaneous industries, but the performances of the food and electrical machinery industries were less noticeable in terms of net output.

Phase 3 (1953/4-1956/7)

Phase 3 of the fifteen-year development period is interesting in that it was during this phase that the 1955/6 census modifications took place. However, of the major-industry groups most affected by these modifications (groups 17, 18, 20 and 23) only group 20 (miscellaneous industries) showed a substantial decline in both gross and net output. In fact, the values of both gross and net output for group 18, which suffered a loss of 10 establishments during the years 1954/5-1956/7, revealed marked increases during this third phase of development. This remarkable growth in output achieved by group 18 in spite of a heavy reduction in the number of establishments must be attributed to the establishment of one of East London's largest industrial enterprises (concerned with the manufacture of batteries) during this third growth phase. There were, however, no new developments of any magnitude in the miscellaneous group of industries, and the fact that groups 17 and 23 continued to show

progress indicates that those establishments removed from these groups in 1955/6 were of only minor significance in terms of output. Gross output in the miscellaneous group of industries fell from R1,214,000 in 1953/4 to R400,000 in 1956/7.

Of the remaining groups, the food, textile and chemical products industries continued to show good progress, but the construction industry underwent a period of further decline, due possibly to a decrease in the rate of new development on the industrial front in East London. Other industrial groups to reveal slight reductions in output were groups 5 (clothing) and 6 (wood products), but these reductions must be attributed more to a general decline in activity in these sectors rather than to any decrease in the number of establishments.

Phase 4 (1956/7-1959/60)

The outstanding feature of the final development phase of the fourth period is the decline in both gross and net output registered for the chemical products industries - group 12, in which gross output fell from R6,324,000 in 1956/7 to R2,550,000 in 1959/60. This decrease in output is the more noteworthy as the chemical products industry had proved to be one of the major industrial growth sectors of the East London area in the first three development phases. A more detailed analysis of the chemical products industry will be attempted in the section dealing with specific growth sectors.

Although figures 10 and 11 have shown the period from 1956/7 to 1959/60 to be one of a declining rate of growth in the value of industrial output, a sound rate of growth in output was achieved during this phase of development by the food, textile, metal products, electrical machinery and construction industries, with the food and construction industries well to the fore as growth sectors. It is significant that, in terms of the overall pattern of industrial development in East London, the general engineering industries (groups 15-18) were, by 1959/60, beginning to emerge as important industrial sectors. In any region, such as East London, where there is an acute shortage of basic, extractive raw materials, the emergence of the engineering and metal products industries as important, if not the leading growth sectors, is indicative of the fact that the industrial development of that region has reached a fairly advanced stage. The general engineering industries have, with only one exception (that of group 17 in the second phase of development), maintained gradual but

significant growth over the fifteen-year period since the Second World War.

Apart from the chemical products industry, the only other industrial groups to show a decrease in output during the final phase of development were the non-metallic mineral products industry and the miscellaneous industrial group which continued the decline revealed in the third phase. For the remaining groups the final phase represents a period of quiet progress.

Fluctuations in output in relation to the number of establishments

In a good many instances the fluctuations in the number of establishments noted above cannot be related to movements in either gross or net output.

The first development phase, 1946/7 to 1950/1, shows the closest relationship of all four phases between number of establishments and output, and it was during this period that both these aspects developed most rapidly. Even in this phase, however, there are inconsistencies in the relationship between output and numbers. For example, the textile industry remained static in numbers but showed substantial growth in output. A similar situation was evident in the chemical products industry which remained constant at 10 establishments while showing a considerable rate of growth in output. Group 16, metal products, actually revealed a loss in numbers but gained in output. Such inconsistencies became more numerous during the second phase of development, 1950/1-1953/4, during which the food and non-metallic mineral products industries both showed output increases coupled with a diminishing number of establishments, while the electrical machinery and personal services industries revealed a static number of establishments but an increase in the value of their output. Groups 5, 7, and 17, on the other hand showed each a rise in numbers accompanied by a fall in output.

Inconsistencies in the relationship between establishments and output reach a maximum during the third phase of development, 1953/4-1956/7. During this phase, group 18 provides a useful example of a situation in which the removal of a relatively high percentage of small establishments can be offset in terms of output by the addition of only one large-scale enterprise. Groups 7, 8, 9, 16, 17 and 23 also showed an increase in output coupled with a decrease in the number of establishments, though the degree of inconsistency in each of these cases was considerably less than in the case of group 18. The food, textile and

non-metallic mineral products industries maintained a constant level in the number of establishments but revealed considerable progress in terms of output, while the wood products and construction industries improved on their 1953/4 levels in terms of establishments but recorded decreasing levels in output. During the final growth phase, 1956/7-1959/60, the only outstanding inconsistency was to be seen in the miscellaneous group of industries which increased by a good percentage in terms of establishments but decreased in terms of output. It might well have been expected, however, that the chemical products industry would have revealed a more substantial decline in its number of establishments in view of the discouraging decrease in output displayed by this group during this phase of development. The food industry showed an almost negligible increase in its number of establishments in relation to the marked increase in output.

For the post-war period as a whole, it is only during the initial phase of development that growth in output can be associated to any substantial degree with a rising number of industrial establishments. The total value of industrial output for the East London area continued to increase right up to the end of the fifteen-year period, while the number of establishments achieved its peak figure as early as 1950/1 with 240, and the 1959/60 figure was well below this maximum, at 223. This trend has resulted in an increasing average output for industrial establishments in the East London area and conforms to the accepted pattern of behaviour in an industrial environment, in which the more enterprising concerns are continually striving to take full advantage of the economies associated with large-scale production. It has already been noted, however, that there was a decline in the average value of industrial output for establishments in East London during the years 1956/7-1959/60 and this deviation from the economic norm must be attributed to a general decline in the rate of growth of the majority of industrial sectors throughout South Africa.

An indication of the actual and percentage increase in the number of establishments, gross and net output for the whole period 1946/7 to 1959/60 is given in table 44 for each industrial group or combination of groups. Statistics relating to the number of establishments have been included only to emphasise the fact that there is no direct relationship between fluctuations in number and growth in output. The main purpose of table 44 lies in

the fact that it gives a valuable guide to the isolation of the leading industrial growth sectors in the East London area for the period up to 1959/60.

Table 44

Numerical and percentage increases in the number of establishments, gross output and net output by group classification 1946/7 to 1959/60

Group	Establishments		Gross output		Net output	
	Actual increase	Per cent increase	Actual increase	Per cent increase	Actual increase	Per cent increase
1, 2	4	15	5,544	346	1,649	225
13, 20, 22	3	30	-35	-19	-20	-20
4, 5, 10, 11, 23	14	100	2,621	308	1,700	455
6, 7	11	110	301	80	121	66
8, 9	3	50	449	208	260	150
12	2	20	513	67	183	44
14	-1	-7	87	62	24	22
15, 16, 17, 18	8	33	1,750	328	717	198
21	44	440	1,235	218	509	178

In terms of the actual values of both gross and net output, the leading industrial sectors of the East London area in 1959/60 were the food, textile, construction, chemical products and electrical machinery industries, each of which had a gross output of well over R2,000,000 and a net output valued at more than R1,000,000 for that year - vide table 42. Table 44 further establishes the above industrial groups as being the leading growth sectors in the East London area for the period 1946/7-1959/60. Of the R6,170,000 recorded as the total value of gross output for the combination of groups 4, 10 and 11 in 1959/60, the value of gross output for group 4 (textiles) by itself stood at R5,878,000 which clearly establishes group 4 as a leading growth sector on its own. Although group 18 revealed a high growth rate for the period as a whole and had a total gross output in excess of R2,000,000 in 1959/60, a disproportionately high percentage of the total output for this group accrued to the two establishments concerned with the manufacture of batteries. With 16 out of the total of 18 establishments contributing very little to the total gross output in 1959/60, it would be misleading to regard group 18 as a whole as one of East London's leading industrial sectors.

Gross and net output per group establishment

Another indication of the major growth sectors in the East London industrial area can be gained from a comparison of the increases in gross and net output per establishment for

each of the major-industry groups. Table 45 has been compiled to show fluctuations in average output between the years 1946/7 and 1959/60 for each industrial group or combinations thereof.

Table 45

Gross and net output per group establishment 1946/7-1959/60
R000

Group	Gross output		Net output	
	1946/7	1959/60	1946/7	1959/60
1, 2	118	460	54	154
13, 20, 22	36	22	20	12
4, 5, 10, 11, 23	84	182	38	110
4		1,176		706
6, 7	74	64	36	28
8, 9	72	144	58	96
12	152	212	84	100
14	20	36	16	20
15, 16, 17, 18	44	142	30	68
21	114	66	58	30

This table emphasises the importance of the food, textile and chemical products industries to the East London industrial sector as a whole. The food industry shows the highest average value per establishment of both gross and net output, and in terms of gross output as well as average net output values, it would appear to be the most important single industry in East London. If, however, group 4 is isolated from the combination of groups 4, 5, 10, 11 and 23, it shows an average value of gross output per establishment of R1,176,000, which is more than double the average value of gross output returned for the food industry in 1959/60. Thus the textile manufacturing industry should be regarded as the leading growth sector in East London's industrial area in terms of average output.

The average net output per establishment for group 4 by itself stood at R706,000 in 1959/60 compared with an average net output of R154,000 for the food industry in the same year. In terms of aggregate output, the textile manufacturing industry ranked second to the food industry in 1959/60 - vide table 42. The next industrial group of importance in terms of average gross and net output is the chemical products industry with an average gross output of R212,000 per establishment in 1959/60 and an average net output of R100,000 for the same year. Due to the marked decrease in output experienced by this industrial group during the years 1956/7 to 1959/60, however, the actual growth achieved in terms of average output over the whole period 1946/7-1959/60 was less satisfactory, and was in fact exceeded

by the growth rates recorded for the combination of groups 8 and 9 (paper and printing) and group 18. But the actual value of the average output for group 12 nevertheless warrants its inclusion as a leading industrial sector. The growth factor revealed by group 18 must be attributed to the considerable growth in output achieved in these years by the two battery manufacturers and group 18 as a whole has thus been eliminated as a leading sector.

The sound performance of the paper and printing industries deserves brief comment. In terms of actual output, groups 8 and 9 revealed a very steady increase from R432,000 in 1946/7 to R1, 330, 000 in 1959/60 which places them well to the fore as an important if not a leading, group of industries, and their growth factor in terms of average output per establishment was higher than that returned by the chemical products industry for the period as a whole. It is very noticeable that the construction industry, the wood products and furniture industries and the miscellaneous group of industries recorded absolute decreases in average growth of output. To some extent, the decline in average output shown for the miscellaneous group of industries can be 'written-off' against the census modifications introduced in 1955/6, but it should be remembered that output in this group of industries continued to decline in the period 1956/7 to 1959/60 in spite of a substantial increase in the number of establishments. The wood products and furniture industries suffered from a large increase in the number of establishments from 1946/7 to 1959/60 and a relatively small increase in terms of output, and the same position applies to the construction industry which showed a 440 per cent increase in its number of establishments but an increase of only 218 per cent in gross output. In spite of this, however, the construction industry warrants inclusion as a leading sector in terms of aggregate output, and its growth factor showed considerable improvement over the last phase of development indicated in table 42.

Relative importance of industrial groups

It is interesting to compare the relative importance, in terms of net output, of each group of industries in the East London area with the corresponding statistics for the private industrial sector of South Africa as a whole. Such a comparison is afforded by table 46, which gives the actual value of net output and the value of net output expressed as a percentage of total net output,

for each industrial group in East London and in South Africa as a whole for the census year 1959/60.

Table 46

Relative importance of each group of industries in terms of net output - East London and South Africa

Group	East London				South Africa	
	1950/1		1959/60		1959/60	
	Value of net output R000	Per cent of total net output	Value of net output R000	Per cent of total net output	Value of net output R000	Per cent of total net output
1, 2	2,224	23.2	4,770	30.1	188,251	15.3
3, 13, 20, 22	342	3.6	160	1.0	117,110	9.5
4, 10, 11	864	9.0	3,696	23.4	65,883	5.4
5	252	2.6	210	1.4	93,025	7.5
6	182	1.9	260	1.7	23,844	1.9
7	394	4.1	350	2.2	25,550	2.1
8, 9	436	4.6	866	5.5	91,134	7.4
12	1,632	17.1	1,202	8.0	98,120	8.0
14	300	3.1	266	1.6	75,792	6.2
15, 16	698	7.3)	1,056	6.6	208,916	17.0
17	204	2.1)			54,529	4.4
18	314	3.3	1,102	7.0	45,481	3.7
21	1,532	16.0	1,592	10.0	129,316	10.4
23	196	2.1	242	1.5	14,729	1.2
TOTAL	9,570	100.0	15,772	100.0		100.0

Source: 1959/60 figures for South Africa only taken from Special Report no.250 of the Bureau of Census and Statistics.

Once again the predominant part played by the food, textile, chemical products and construction industries in the East London private industrial sector is emphasised by the percentage contributions of these industries towards the total net output for the area as a whole. The largest single industrial group (excluding the mining industry) in terms of net output in 1959/60 was the food industry (group 1) both in East London and South Africa, but it is obvious that the food industry is more important to East London than to the country as a whole. The combined net outputs of the food, textile, chemical products and construction industries amounted to 71.5 per cent of the total net output for East London industry in 1959/60, showing an increase of 6.2 per cent over the 1950/1 figure. But these four industries contributed only 39.1 per cent of the total industrial net output for South Africa in 1959/60.

Although the percentage contribution of the chemical products industry towards the total net output of the East London area was as high as 17.1 per cent in 1950/1, the marked reduction experienced by this industry during the years 1956/7-1959/60

brought this figure down to 8 per cent in the latter year. The food and textile industries, on the other hand, increased their percentage contributions to total net output in the East London area during the period 1950/1-1959/60, and in the final year of this analysis these two industries together accounted for more than 50 per cent of East London's total net output. The indications are that they will continue to expand at a faster pace than the other industrial groups. In South African industry however, the textile sector was of only minor importance in 1959/60. Other industrial sectors to increase in their importance to the East London economy during the years 1950/1-1959/60 were the paper and printing industries (groups 8 and 9), and the electrical machinery industry (group 18). All the remaining sectors, including the construction industry, experienced a relative decrease in net output during these years. The general engineering and metal products industries (groups 15-18) contributed only 13.6 per cent of total net output in East London in 1959/60, while the corresponding figure for South African industry stood at 25.1 per cent. As the pace and scale of industrial development improves in East London these engineering and metal groups will increase their productivity, but the absence of mineral resources in the East London area may confine activities within these industries to the production of light industrial requirements.

Compared with the figures given for South African industry as a whole, the East London percentages of total net output present a picture of striking imbalance in the industrial structure of this area. This is, however, to be expected in an area with a limited supply of natural resources and which is, as yet, in a comparatively early stage of its industrial development. Moreover, the degree of imbalance is likely to be accentuated with the increasing emphasis that is being placed on regional specialization in order to derive the maximum benefit from the economies associated with regional concentration of industry.

Value of physical assets by industrial groups

Table 47 gives the major-industry group statistics relating to the value of land, buildings, machinery, plant and tools for the years 1946/7, 1950/1, 1953/4 and 1959/60 for the East London private industrial sector. No statistics are available for the year 1956/7 on a magisterial district basis.

The outstanding feature of table 47 is to be seen in the extent to which the total value of physical assets has increased over

the years shown. The total value of physical assets increased from R2,770,000 in 1946/7 to R22,696,000 in 1959/60, but it is equally obvious that marked increases in the value of physical assets were confined to a small number of industrial groups, notably the food, textile and miscellaneous industry groups.

Table 47

Value of physical assets by industrial groups: 1946/7-1959/60

R000

Group	1946/7	1950/1	1953/4	1959/60
1, 2	750	1,380	1,688	4,780
3, 13, 20, 22	598	1,804	5,418	10,614
4, 10, 11	316	1,126	2,254	2,398
5		108	178	60
6	188	150	230	226
7		160	216	190
8, 9	196	208	504	310
12	188	696	930	770
14	124	484	270	258
15, 16		410	614	586
17	354	154	134	
18		194	1,584	1,828
21	56	320	456	534
23		158	240	142
TOTAL	2,770	7,352	14,716	22,696

Source: Statistics supplied by the Bureau of Census and Statistics, Pretoria.

During the first phase, from 1946/7-1950/1, an increase in the value of physical assets was evident in each major industrial group but even at this stage of development the food, textile and miscellaneous industry groups were predominant in terms of physical assets. Other industrial groups to show outstanding growth in the value of their physical assets during the first phase of development were the chemical products, non-metallic mineral products and construction industries (groups 12, 14 and 21). The rising values of physical assets revealed in the first four years of industrial growth as presented in table 47 can be attributed to a period of marked expansion on the industrial front in East London, not only in terms of productive output but also in terms of the number of establishments existing in each group of industries, with the exception of the textile and chemical products groups, in which the number of establishments remained constant. It should be noted, however, that in the field of textile manufacturing itself (group 4), the year 1949 saw the establishment of one of East London's largest industrial concerns, engaged in the manufacture of women's stockings.

With the exception of groups 14 and 17, all of East London's major-industry groups continued to reveal considerable expansion in the value of their physical assets during the second development phase 1950/1-1953/4. During this phase, groups 5, 7 and 17 suffered a loss in gross output but groups 5 and 7 increased in the value of their physical assets. It is also evident that fluctuations in their numbers are not necessarily reflected in the value of physical assets, as in groups 1 and 2 a reduction of 5 establishments is to be reconciled with an increase of R308,000 in the value of physical assets. It is true, however, that group 14 suffered a loss in numbers during this period.

Although the food, textile and chemical products industries continued to show marked increases in the value of their physical assets during this second development phase, two groups of industries in particular achieved outstanding growth in this aspect. These were the miscellaneous group of industries (groups 13, 20 and 22) and the electrical machinery industry (group 18). With regard to group 18, much of the growth in the value of its physical assets during this phase of development can be attributed to the establishment of a large concern engaged in the manufacture of batteries in 1953. In the case of the miscellaneous group of industries, however, the increase from R1,804,000 in 1950/1 to R5,418,000 in 1953/4 in the value of physical assets cannot be accounted for in the establishment of any new concern, but rather in a tremendous increase in plant and equipment, since table 25 has indicated that the major portion of the increase in the value of physical assets for the East London area as a whole over the years 1950/1-1953/4 must be attributed to a substantial rise in the value of machinery, plant and tools. The value of land and buildings increased from R3,606,000 in 1950/1 to R6,658,000 in 1953/4, while the value of machinery, plant and tools increased from R3,748,000 to R8,040,000 during the same period. This increase in the value of machinery, plant and tools was not, however, evenly distributed over the three years from 1950/1-1953/4, and the major portion of the increase was experienced in the significant rise from R4,756,000 in 1952/3 to R8,040,000 in 1953/4. A more detailed summary of fluctuations in the value of machinery, plant and tools is presented in table 48 for each of the major industry groups for the years 1952/3, 1953/4 and 1954/5.

The three industrial sectors which showed marked increases

Table 48

Value of machinery, plant and tools by industrial group 1952/3-1954/5

Group	Value of machinery, plant and tools - R000		
	1952/3	1953/4	1954/5
1, 2	628	742	816
3, 13, 20, 22	1,818	3,780	5,056
4, 10, 11	936	1,394	1,484
5	24	34	26
6	80	90	108
7	56	84	78
8, 9	196	192	162
12	298	348	308
14	120	94	100
15, 16	250	254	262
17	46	36	36
18	48	718	744
21	186	192	196
23	70	88	84
TOTAL	4,756	8,056	9,568

in the value of their machinery, plant and tools for the year 1952/3 - 1953/4, were the textile, electrical machinery and miscellaneous groups of industries. A new textile plant was established and brought into production during the year 1951/2 and would account for a large proportion of the increase in physical assets in group 4. It has already been noted that a new battery plant was established in 1953 in East London, giving rise to increases in the value of physical assets in group 18. But the major increase in the value of machinery, plant and tools occurred in the combination of groups 13, 20 and 22. Group 13 boasts only one establishment, which commenced operations in the East London area in 1932 and underwent no large-scale programme of expansion in 1953/4, and the majority of concerns listed under group 20 are small-scale establishments. Field research has indicated no great expansion in this sector over the year under consideration. This leaves group 22, and it is in fact to this industrial group that the rapid increase in the value of physical assets recorded for the year 1953/4 must be attributed.

Group 22 (electricity, gas and steam) includes electricity supply stations - generating - in its list of industrial sub-groups, and a brief study of the capital expenditure incurred in the expansion of the generating capacity of the East London power station, since 1947, is sufficient to indicate the importance of this single enterprise in terms of the overall value of physical assets pertaining to the East London industrial sector as a whole.

Table 49

Capital expenditure incurred by Escom's Border undertaking 1947-1960 (R000)

Year	Actual expenditure	Cumulative
1947	462	462
1948	152	614
1949	254	868
1950	290	1,158
1951	620	1,778
1952	410	2,188
1953	1,214	3,402
1954	2,082	5,484
1955	1,648	7,132
1956	994	8,126
1957	728	8,854
1958	278	9,132
1959	804	10,346

Source: Annual Reports of the Electricity Supply Commission (Escom) for the relevant years.

The most important years of development for the East London power station, in terms of capital expenditure, were 1953, 1954 and 1955. Of the total increase in the value of the physical assets for the year 1953/4 of the East London industrial sector as a whole, almost one-half can be attributed to the expanding capacity of the power station, which increased the value of its physical assets by R2,082,000 out of a total increase of R4,444,000 for the East London industrial sector. The period 1953/5 marks the development of increased generating capacity at the West Bank no.2 power station in East London. Working on an estimated ratio between the value of a) land and buildings and b) machinery, plant and tools, for the electricity supply station, the value of machinery, plant and tools belonging to the power station in 1953/4 was in the region of R2,886,000, which represents a very high percentage of the total of R3,790,000 shown for groups 13, 20 and 22 in table 50.

Table 50

Annual increases in the value of physical assets (R000) a) total for East London private industrial area, and b) electricity supply station only

Year	East London total	Electricity supply station
1948	658	152
1949	1,210	254
1950	782	290
1951	1,930	620
1952	1,128	410
1953	1,772	1,214
1954	4,444	2,082
1955	2,588	1,648
1956-1960	5,418	3,214

Clearly, the major portion of capital expenditure in East London's industrial sector has been carried by group 22, or in other words, by the electricity supply station. The increase in the value of machinery, plant and tools given in table 48 for the year 1952/3-1953/4 for the combination of groups 13, 20 and 22 was R1,972,000, of which it is estimated that at least R1,586,000 can be attributed to increased expenditure on the power station. Similarly, a very high percentage of the increase in the value of physical assets recorded in table 47 for groups 13, 20 and 22 during the first phase of development, 1946/7-1950/1, must be attributed to group 22 alone.

The third phase of table 47, 1953/4-1959/60, is remarkable for the fact that in all major-industry groups, except the food, textile, electrical machinery, construction and miscellaneous industry groups, there was a decrease in the value of physical assets. It can, however, be noted that only one of East London's leading industrial sectors, group 12, suffered a similar reduction and, as will be explained in the following section of this study, the reason for such a loss in group 12 can be attributed to the removal of one of the chemical products industry's largest concerns from the East London area. The highest percentage increase in the value of physical assets during this phase was recorded by the foodstuff industry, which showed an increase of from R1,688,000 in 1953/4 to R4,780,000 in 1959/60 - a net gain of R3,092,000. In absolute terms, however, the combination of groups 13, 20 and 22 recorded a greater increase in the value of physical assets than did the food industry. But once again the relative importance, in terms of the value of physical assets, of the power station must be noted, for of the total increase of R5,196,000 recorded in table 47 for groups 13, 20 and 22 in the value of physical assets for the period 1953/4-1959/60, R4,862,000 represents capital expenditure on the power station alone.

In spite of the fact that a large number of industrial groups revealed reductions in the value of their physical assets during the years 1953/4-1959/60, the total for the East London industrial area as a whole increased substantially. The period was not remarkable, however, for new developments in the industrial scene, and where increases in the value of physical assets are evident, they can be related to developments within existing concerns. This is especially true of the foodstuff industry, which boasts the largest single industrial concern in the East

London area. This phase of development includes the year of census modifications, 1955/6, and there was, in fact, a reduction in the number of establishments operating in the East London area between the years 1953/4 and 1959/60. Those industrial groups which showed increases in the value of physical assets also revealed marked improvements in terms of gross and net output for the years 1953/4-1959/60.

A more intensive use of capital

The remarkable increases in the values of land, buildings, machinery, plant and tools recorded for the East London industrial area over the period 1946/7 to 1959/60 suggests that the productive techniques employed by industry in East London have, on the whole, become increasingly capital-intensive, though it is equally true that the industrial labour force also increased during these years.

Table 51 indicates that during the period 1946/7-1953/4 there was an increase in the use of capital in each industrial group. The most substantial increases in the value of physical assets were, however, recorded for the textile and miscellaneous industry groups. The latter group increased the value of its assets by R198,000 per establishment during these years, but it must be remembered that the major share of this marked increase was registered by group 22. The textile industry by itself (group 4) was responsible for the increases in assets registered by groups 4, 10 and 11, for though of limited size in terms of establishments, the textile industry has experienced rapid growth in terms of productive capacity and output since 1945/6. The years 1946/7-1953/4 saw, in addition, the advent of two large textile concerns on the East London industrial scene. Other new developments which markedly influenced the growth of their respective industrial groups, in relation both to output and to the value of physical assets, were the establishment of a new chemical plant in group 12 in 1948, and a new battery plant in group 18 in 1953. The effects of these developments can be seen in table 51. The food industry and the paper and printing industries also showed a marked tendency towards an increased scale of production during the period 1946/7 to 1953/4.

During the second half of the period covered by table 51, 1953/4-1959/60, there was a surprising tendency for the majority of industrial groups to show a decline in the value of physical assets per establishment. It is true that there was a general

Table 51

Physical assets per group establishment – R000
1946/7, 1953/4, and 1959/60

Group	Physical assets per establishment		
	1946/7	1953/4	1959/60
1, 2	28	60	154
13, 20, 22	60	258	758
4, 10, 11)	16	204	240
5)		10	4
6)	18	20	16
7)		24	32
8, 9	32	56	34
12	18	84	64
14	8	18	20
15, 16)	14	40)	42
17)		12)	
18)		84	102
21	6	10	10
23		22	14

decline in the number of establishments in the East London area as a whole during these years, but it is equally true that this decline was due mainly to the census modifications of 1955/6 and the majority of establishments removed from the census in that year could well have occupied rented premises. Their removal would not, therefore, have profoundly influenced the growth pattern other than by causing a slight reduction in the value of machinery, plant and tools. It is further apparent that reductions in the average value of physical assets were recorded in the wood products and paper and printing industries, which were not affected by the census modifications. The reduction in the average value of physical assets given for the chemical products industry in 1959/60 can be attributed to the loss of one of the industry's major concerns in 1959. The food, textile and electrical machinery industries continued to increase their scale of production while the construction industry remained fairly static when judged on average figures.

Once again, the large increase in the average value of physical assets given for the miscellaneous industry group can be accounted for in the increased value of machinery and plant belonging to the power station. It is significant that the average value of physical assets per establishment in groups 13, 20 and 22 in 1959/60 diminishes to as little as R20,000 once those relating to the power station are removed. In spite of the comparatively large number of establishments included in group 5 (clothing and made-up textiles), which in 1959/60 boasted 18 concerns, the value of physical assets for this group remained

at a very low level, owing probably to a high percentage of rented premises and an equally high percentage of tailors and similar small-scale clothing manufacturers. It has already been mentioned that the years 1953/4-1959/60 were conspicuous for the absence of new industrial developments, and in those industries which experienced little in the way of expansion during these years, it is only to be expected that depreciation of physical assets would result in a downward trend.

Analysis of materials used by industrial groups

Table 52 presents a statistical analysis of the value of materials used on a major-industry group basis for the years 1946/7, 1950/1, 1953/4, 1956/7 and 1959/60.

Table 52

Value of materials used by industrial groups 1946/7-1959/60

Group	Value of materials used R000					Materials used as percentage of gross output 1959/60
	1946/7	1950/1	1953/4	1956/7	1959/60	
1, 2	1,778	3,970	5,560	7,698	9,504	66.5
3, 13, 20, 22	34	86	194	108	124	42.2
4, 10, 11	936	1,586	1,934	2,587	2,916	47.3
5		174	212	200	248	54.1
6	374	362	348	400	426	62.1
7		228	226	296	314	47.3
8, 9	84	160	264	330	464	34.9
12	676	1,838	2,662	3,116	1,346	52.8
14	40	84	84	242	190	41.7
15, 16	332	386	516	446	1,156	52.3
17		436	74	658		
18		388	750	456	700	29.7
21	558	2,102	1,660	1,290	2,010	55.5
23		28	26	54	68	21.8

Source: Statistics for 1956/7 from Special Report no.240 of the Bureau of Census and Statistics. Remaining statistics supplied by the Bureau of Census and Statistics, Pretoria.

Understandably, the largest consumers of industrial materials are those industrial groups which comprise the leading sectors of the East London industrial area; the food, textile, chemical and construction industries. The food industry is the most important consumer and, to a great extent, the growth in its output is reflected in the increase of R7,836,000 in the value of materials used during the years 1946/7-1959/60. The rise in the value of materials used by the food industry was fairly evenly distributed throughout each phase of the period covered by table 52, with no disproportionate increase during any one phase. The textile industry ranks second in the East London area in

this respect, and, like the food industry, it reveals a steady and continuous increase in the value of materials used during each phase. It is only to be expected that in the majority of industrial groups fluctuations in the value of materials used will correspond closely to similar fluctuations in the value of gross output. This is particularly evident in the case of the construction industry, in which a considerable increase in the value of materials used during the first growth phase is followed by a decline in value during both the second and third phases and then an increase in the final phase. The chemical products industry shows a marked increase in the value of materials used during the first three growth phases but a sharp decrease during the final phase which closely follows the pattern set by the gross output statistics.

All industrial groups showed an increase in the value of materials used during the first development phase of table 52 and the upward trend was continued into the second phase by all but the construction, machinery and wood products industries. Both the construction and machinery industries revealed corresponding decreases in gross output, but the decline in the value of materials used by group 6 during the second phase took place during a period of expanding output. On the other hand, groups 5 and 7 showed a decreasing value of gross output coupled with an increasing value for materials used. Fluctuations in the value of materials which do not correspond with those in the value of output are probably due to price changes. The marked decreases in the cost of materials in groups 20 and 18 during the third phase are probably connected with the census modifications of 1955/6 which affected these two groups more than the others. It is, however, surprising to find so marked a decrease in group 18 whose gross output had increased considerably. This suggests that those establishments remaining in group 18 after the census modifications used materials of a low value in relation to their gross output. During the final phase the only industrial group, apart from chemical products, to show a decrease in the value of materials used was the non-metallic mineral products industry (group 14), but this corresponds to a fall in gross output.

In the last column of table 52 the food industry shows the highest value of materials in relation to gross output. The food industry is a processing rather than a manufacturing one and as such the high percentage of materials is not surprising. The

same ratio is high in the construction, the clothing and made-up textiles and the wood products industries (group 6), but in all these groups the emphasis is on the processing of materials rather than the manufacture of different commodities. The difference between processing and manufacture is well illustrated by comparing the percentages given for group 6 (principally processing concerns) and group 7, in which the accent is on the manufacture of furniture, etc. In group 6 the value of materials used during 1959/60 amounted to 62.1 per cent of gross output while the corresponding percentage for group 7 was 47.3 per cent. Groups 18 and 23 have remarkably low percentage values for materials in relation to gross output, with figures of 29.7 per cent and 21.8 per cent respectively.

Table 53

Value of imported materials used - R000

Group	Value of imported materials					
	1946/7		1950/1		1953/4	
	R000	%	R000	%	R000	%
1, 2	654	(39)	1,232	(31)	1,396	(25)
3, 13, 20, 22	8	(24)	50	(58)	66	(34)
4, 10, 11	830	(89)	1,262	(79)	1,334	(69)
5			152	(87)	188	(89)
6	316	(84)	338	(93)	282	(81)
7			150	(66)	132	(58)
8, 9	80	(95)	136	(85)	210	(80)
12	432	(64)	1,126	(61)	1,596	(60)
14	28	(70)	46	(55)	30	(36)
15, 16	144	(43)	190	(49)	296	(57)
17			402	(92)	18	(25)
18			204	(53)	318	(43)
21	282	(51)	926	(44)	468	(28)
23			16	(57)	10	(38)

Note: Figures in brackets represent the value of imported materials expressed as a percentage of total materials used.

Source: Figures supplied by the Bureau of Census and Statistics, Pretoria.

Although it is unfortunate that more recent statistics relating to imported materials are not available, table 53 nevertheless indicates that during the period 1946/7 to 1953/4 there was a reduction in the percentage of imported materials used by each industrial group in East London, except for groups 5, 15 and 16. Group 5 (clothing and made-up textiles) showed itself to be most dependent on imported materials which in 1953/4 totalled 89 per cent of all those used by this industry. Other groups which relied heavily on imports were groups 4, 10 and 11 (textiles, leather

and rubber products), group 6 (wood products), groups 8 and 9 (paper and printing) and group 12 (chemicals). The development and increased exploitation of South Africa's own sources since 1953/4 have, however, almost certainly resulted in a substantial reduction in the value of imported materials used by local industries. This has been particularly evident in the increased output of South African mineral materials, chemical by-products from coal and paper products, and it is probable, therefore, that more recent statistics would reveal a decrease in the value of imports used by groups 6, 8, 9, 12, 15 and 16. The textile, clothing, rubber and chemical industries, however, will continue to make use of a good proportion of imported materials for some time to come and they will therefore find it an advantage to be settled near a port.

REFERENCES

1. Vide: Appendix 'A'.
2. Miscellaneous industries include the manufacture of scientific instruments, watches, jewellery, optical and photographic goods, musical instruments, toys, plastic products, buttons, electroplating, signwriting and cold storages.
3. Personal services are listed as laundries, dyeing and dry-cleaning establishments.
4. Vide: Appendix 'A'.

Chapter 5

INDUSTRIES WITH GROWTH POTENTIAL

From the preceding analysis of East London's major industries it has been possible to isolate the leading sectors in its private industrial economy. On the basis of both gross and net output the latest industrial census returns (1959/60) reveal that the dominant sectors were the food, textile, chemical products, electrical machinery and construction industries - groups 1, 4, 12, 18 and 21. The electrical machinery industry, however, will be excluded from this treatment owing to the overwhelming predominance within its group of no more than two establishments. Other industries which had attained considerable proportions by 1959/60 were the paper and printing industry (groups 8 and 9) and the metal products and machinery industries (groups 16 and 17), but for the purposes of this chapter only those single industrial groups having a gross output of more than R2,000,000 in 1959/60 were considered.

The statistical framework covering the development of the four leading industrial sectors during the period 1945/6-1959/60 is presented in tables 54, 55, 56 and 57. The importance of these four industries to the private industrial economy of East London as a whole can be gauged from the figures given in table 58 which indicates the percentage contributions of the leading sectors towards the total gross and net output of the area. In 1959/60 the four leading sectors totalled 102 establishments, representing 45 per cent of the whole, but in terms of gross output their contribution was as high as 77 per cent of the total. The percentage figures given for net output are slightly lower than those for gross output but they emphasise nevertheless the marked importance of the major industries in East London. It is also significant that the gross and net output figures reveal an increasing divergence between the growth rates of the leading sectors and the growth rates of the remaining industrial groups. In terms of gross output the percentage contribution of the leading sectors rose from 71 per cent in 1945/6 to 77 per cent in 1959/60 while the net output percentages increased from 63 per cent in 1945/6 to 72 per cent in 1959/60. The difference between the gross output and net output percentages given in

Statistics relating to the four leading industrial sectors in the East London area : 1945/6-1959/60

Table 54

Food industry : group 1

Year	Number of establish-ments	Value of physical assets R000	Total number of employees	Total wages and salaries R000	Gross output R000	Net output R000
1945/6	30	600	1,669	616	2,826	1,264
1946/7	31	750	1,715	670	3,198	1,472
1947/8	35	1,002	1,953	788	3,786	1,544
1948/9	36	1,250	2,050	886	4,508	1,784
1949/50	37	1,320	2,188	992	5,550	2,112
1950/1	35	1,380	2,111	1,022	6,264	2,224
1951/2	33	1,388	1,975	1,008	6,036	2,112
1952/3	27	1,432	2,123	1,128	7,536	2,258
1953/4	28	1,684	2,354	1,220	8,270	2,606
1954/5	28	2,068	2,248	1,306	8,550	2,744
1955/6						
1956/7	28	x	3,865	1,714	11,204	3,506
1957/8						
1958/9						
1959/60	31	4,780	3,932	2,304	14,285	4,770

Source: 1956/7 statistics taken from Special Report no.240 of the Bureau of Census and Statistics. Remaining figures supplied by the Bureau in Pretoria.

Table 55

Textile industry : group 4

Year	Number of establish-ments	Value of physical assets R000	Total number of employees	Total wages and salaries R000	Gross output R000	Net output R000
1945/6	17	286	865	296	1,578	780
1946/7	15	316	881	310	1,698	748
1947/8	21	380	1,036	392	1,962	828
1948/9	24	474	1,017	416	1,944	924
1949/50	23	582	947	420	2,282	1,120
1950/1	4	1,064	926	354	2,342	788
1951/2	4	1,504	612	400	1,962	858
1952/3	4	1,500	1,098	678	3,078	1,598
1953/4	5	2,076	1,278	786	4,094	2,208
1954/5	4	2,348	1,665	962	4,546	2,710
1955/6						
1956/7	5	x	2,097	1,224	5,500	3,070
1957/8						
1958/9						
1959/60	5	1,948	1,934	1,270	5,878	3,528

Source: 1956/7 statistics taken from Special Report no.240 of the Bureau of Census and Statistics. Remaining figures supplied by the Bureau in Pretoria.

Table 56

Chemical products industry : group 12

Year	Number of establishments	Value of physical assets R000	Total number of employees	Total wages and salaries R000	Gross output R000	Net output R000
1945/6	11	160	358	130	1,328	744
1946/7	11	188	342	128	1,524	848
1947/8	11	182	329	128	1,602	654
1948/9	12	384	398	178	1,870	910
1949/50	13	580	484	224	2,294	1,188
1950/1	10	696	540	280	3,502	1,632
1951/2	11	728	613	318	4,012	1,722
1952/3	11	738	661	376	4,606	2,162
1953/4	11	928	748	442	5,344	2,628
1954/5	11	944	797	492	5,904	3,204
1955/6						
1956/7	13	x	842	564	6,324	3,208
1957/8						
1958/9						
1959/60	12	770	592	424	2,550	1,202

Source: 1956/7 statistics taken from Special Report no.240 of the Bureau of Census and Statistics. Remaining figures supplied by the Bureau in Pretoria.

Table 57

Construction industry : group 21

Year	Number of establishments	Value of physical assets R000	Total number of employees	Total wages and salaries R000	Gross output R000	Net output R000
1945/6	13	54	897	268	796	396
1946/7	11	56	1,115	362	1,132	576
1947/8	30	94	1,167	400	1,340	548
1948/9	40	170	1,800	676	2,116	908
1949/50	49	250	2,261	840	2,492	1,148
1950/1	59	320	2,718	1,088	3,650	1,532
1951/2	51	382	2,257	984	3,392	1,482
1952/3	50	448	2,074	964	3,528	1,558
1953/4	45	452	1,951	1,062	2,936	1,266
1954/5	51	468	1,886	1,056	3,456	1,838
1955/6						
1956/7	50	x	1,246	794	2,384	1,096
1957/8						
1958/9						
1959/60	54	534	1,661	1,030	3,602	1,692

Source: 1956/7 statistics taken from Special Report no.240 of the Bureau of Census and Statistics. Remaining figures supplied by the Bureau in Pretoria.

table 58 indicates that the value added by the leading sectors during the various processes of production is less than the average for the remaining industrial groups.

Table 58

Values of gross and net output for four leading sectors expressed as percentages of total outputs for the East London industrial area

	Gross output : R000				Net output : R000			
	1945/6	1950/1	1956/7	1959/60	1945/6	1950/1	1956/7	1959/60
A) Total East London	9,162	21,868	33,718	35,376	5,080	9,568	15,358	15,774
B) Leading sectors	6,528	15,758	25,412	27,316	3,184	6,176	10,880	11,192
'B' as a percentage of 'A'	71	72	75	77	63	65	71	72

Gross and net output

In order to attempt a comparison between the growth rates of each of the four leading industrial sectors, indexes of their respective gross output have been compiled for the period 1945/6 to 1959/60, with 1945/6 as base year. These index numbers are given in table 59, and have been plotted to scale in figure 17 which thus illustrates the pattern of growth in terms of gross output for each sector since 1945/6.

Table 59

Indexes of gross output for East London's leading industrial sectors: 1945/6-1959/60 - 1945/6=100

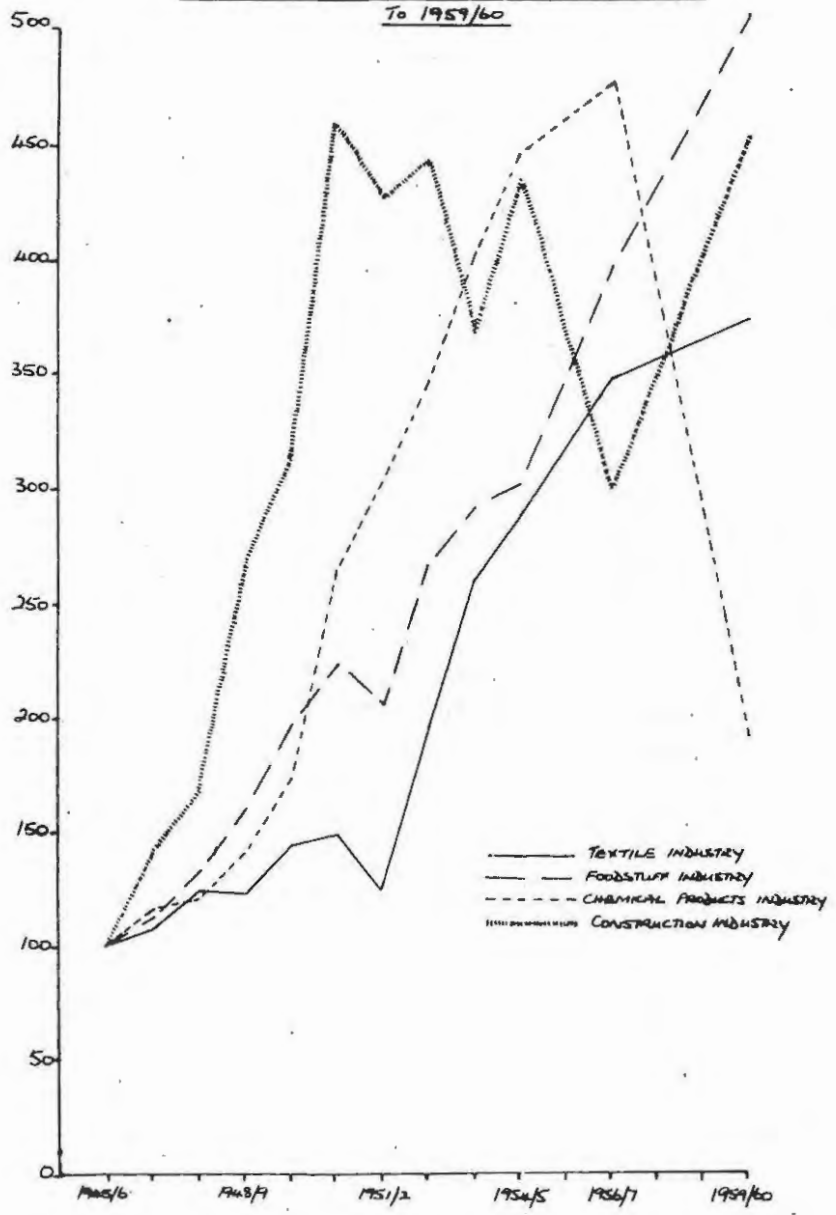
Year	Food industry group 1	Textiles group 4	Chemical products group 12	Construction group 21
1945/6	100	100	100	100
1946/7	113	107	115	142
1947/8	133	124	121	168
1948/9	159	123	141	266
1949/50	196	144	173	313
1950/1	222	148	264	459
1951/2	214	124	302	426
1952/3	266	195	347	443
1953/4	292	259	402	369
1954/5	302	288	445	434
1955/6				
1956/7	396	348	476	300
1957/8				
1958/9				
1959/60	505	373	192	453

The food industry

The food industry (group 1) has been the most stable and the most important of all industries in East London. The value of

FIGURE 17

INDEXES OF GROSS OUTPUT FOR THE MAJOR PRIVATE INDUSTRIAL SECTORS OF EAST LONDON : 1945/6 TO 1959/60



gross output for this industry showed a five-fold increase during the period 1945/6 to 1959/60 reaching a figure of R14,285,000 in the latter year - over R8,000,000 more than the corresponding figure for the textile industry which, in 1959/60, ranked as East London's next most important industry. Figure 17 illustrates the relatively stable rate of growth achieved by the food industry throughout the fifteen-year period given and the gross output index numbers in table 59 indicate that it also returned the highest overall rate of growth of all the major industries during these years. In 1946/7 the food industry accounted for 26.9 per cent of the total net output of the area and by 1959/60 this figure had increased to 30.1 per cent. The dominant position of the food industry, together with the fact that it was strengthened during the years under review, indicate the under-developed state of East London's industrial sector. The early stages of industrial development in any area are characterised by the domination of the consumer-goods industries of which the food industry itself is the most basic. This is particularly true of an area lacking in mineral resources and other industrial materials. Consumer-goods industries generally require less initial capital investment than do the capital-goods industries and are assured of at least a limited regional market. Technological progress, however, gradually stimulates the demand for capital-goods and an inter-industry flow of materials results from the need for industrial complementarity. Thus the more advanced stages of industrial development are characterised by the gradual ascendancy of the capital-goods industries. With one notable exception - that of a large sweet manufacturing concern - the firms comprising East London's food industry exist primarily to supply the needs of the city's regional market or non-competitive hinterland. The food industry is made up largely of non-complementary concerns and it is unlikely, therefore, to stimulate sustained industrial growth in other sectors.

Assuming the availability of industrial resources, the growth potential of any industry is dependent upon the growth of the market it serves, and this is particularly true of the food industry, which is limited in its capacity to expand by the size and purchasing power of the population in its market area. Fortunately for East London, the market potential of the food industry among the vast numbers of Africans living in the hinterland has, as yet, been relatively unexploited and the industry can

look forward to further expansion as the purchasing power of the Africans increases. The anticipated increase in the rate of industrial development in East London itself will also result in an increase in the demand for foodstuffs among the expanding white population and will do much towards augmenting the incomes of the non-whites. The South African economy in general is far from being fully developed, and national as well as regional food concerns operating from East London will benefit from an expanding market for some years to come.

East London's food industry shows a low value of net output in relation to the value of its gross output. In 1945/6 the net output of the food industry amounted to 44.7 per cent of gross output and by 1959/60 the figure had dropped to 33.3 per cent. These net output percentage values were in fact lower than those of any other industrial group and point to the fact that the food industry is concerned more with the processing than the actual manufacture of foodstuffs. Thus the food industry can be expected to return a high percentage figure for the value of materials used in relation to gross output. In 1959/60 this was R9,504,000 or 66.5 per cent of the value of the industry's gross output in that year. This percentage was higher than that of any other industrial group and showed an increase of 11 per cent over the 1946/7 figure. The values of materials used by the four leading industrial sectors of the East London area are given in table 60 for selected years and they make clear that the value of materials used by the food industry was greater than the value of the industry's net output for each year.

The years 1945/6 to 1959/60 represent a period more of expansion among existing concerns than of any important new developments within the food industry - which in fact showed a net gain of only one establishment. The boom period enjoyed by the pineapple industry in the mid-'fifties did, it is true, result in the establishment of two canning factories - but the serious collapse of the pineapple market in more recent years has not encouraged further expansion in this field. The most important sectors of East London's food industry are those concerned with the manufacture and processing of confectionery and grain mill products.

The textile industry

Although the rate of growth achieved by the textile industry during the years 1945/6 to 1959/60 was less impressive than

Table 60

Value of materials used by the four leading industrial sectors of the East London area - 1946/7 to 1959/60

Year	Food industry		Textiles		Chemicals		Construction	
	Value of materials used R000	Materials used as a percentage of gross output	Value of materials used R000	Materials used as a percentage of gross output	Value of materials used R000	Materials used as a percentage of gross output	Value of materials used R000	Materials used as a percentage of gross output
1946/7	1,778	55.6	936	55.1	676	44.4	558	49.3
1950/1	3,970	62.4	1,532	65.4	1,838	52.5	2,102	57.6
1953/4	5,560	67.2	1,934	47.3	2,662	49.8	1,660	56.5
1956/7	7,698	68.6	2,428	44.2	3,116	49.3	1,290	54.1
1959/60	9,504	66.5	2,351	40.0	1,346	52.8	2,010	55.7

Source: 1956/7 figures taken from Special Report no.240 of the Bureau of Census and Statistics. Remaining figures supplied by the Bureau of Census and Statistics, Pretoria.

that of the food industry, the indications are that the textile sector will become the mainstay of future industrial development.

The gross output index curve for the textile industry - figure 17 - indicates two distinct growth phases. The first of these, 1945/6-1951/2, was one of relatively minor fluctuations, coloured by two years (1948/9 and 1951/2) during which gross output actually declined. The value of the industry's gross output stood at R1,962,000 in 1951/2, showing an increase of only 24 per cent over the 1945/6 figure. Although the statistics given for the textile industry in table 55 for years prior to 1950/1 include those relating to groups 5, 10, 11 and 23, the removal of these groups in 1950/1 did not result in any loss of gross output for the industry itself. In fact, the contribution of the four related groups to the total output of the textile industry prior to 1950/1 was of minor importance only. Apart from the recessions of 1951/2, the period from 1950/1 to 1959/60 was one of considerable and sustained growth in gross output for the textile industry. The gross output index figures rose from 148 to 373 during these years and by 1959/60 the value of the gross output had risen to R5,878,000 or 16.6 per cent of East London's total.

Movements in the textile industry's net output, however, differed from those in the industry's gross output shown in figure 17. There were only two years - 1946/7 and 1950/1 - during which net output decreased, and it is significant that these decreases in net output preceded a fall-off in the value of gross output. As the textile industry relies to a great extent upon the importation of raw materials, such as cotton and synthetic fibres - in 1959/60, 69 per cent of the materials used by the industry in East London was imported - it seems probable that fluctuations in net output would coincide with world-wide changes in either the supply or market price of raw materials. The years 1946/7 and 1950/1 were coloured in the first instance by the post-war boom and, in the second, by the threat of a further outbreak of war in the Far East, each of which led to a sharp increase in the demand for textiles. Any increase in demand forces up the price of a commodity and thus in these years the value of the textile industry's net output would tend to decline while total sales or gross output would show an increase. On the other hand, during years in which the demand for textiles slackened - i.e., 1948/9 and 1951/2 - gross output would tend

to decline while the fall-off in demand and price for raw materials would result in a relative increase in the value of net output.

The value of net output for the textile industry increased from R780,000 in 1945/6 to R3,528,000 in 1959/60, showing a rate of growth faster than that recorded by the industry's gross output. In 1945/6 net output amounted to 49 per cent of gross output but this figure had increased to 60 per cent by 1959/60, and the extent of this percentage increase is reflected in the remarkable decline during the 1950's in the value of materials used by the textile industry when expressed as a percentage of gross output.

The chemical products industry

The most striking feature of figure 17 is the exceptional rate of growth and decline experienced by the chemical products industry, with the major emphasis on the rapid decline in the industry's gross output during the years 1956/7-1959/60, when the gross output index number fell from 476 to 192. The chemical products industry, which in East London is geared more to the consumer-goods market than to the capital-goods market, registered the most consistent and the most rapid rate of growth of all leading sectors for the years 1945/6-1956/7, during which time the actual value of its gross output rose from R1,328,000 to R6,324,000 and its index rose from 100 to 476. In addition, the chemical products industry was the only leading sector not to show a decline during the recession of 1951/2. But, whereas the remaining major industries showed considerable improvement in terms of gross output during the final development phase, 1956/7-1959/60, the value of gross output in the chemical industry slumped from R6,324,000 in 1956/7 to R2,550,000 in 1959/60. When it is considered that the 1959/60 output levels for the chemical products industry were less than the values recorded for the year 1950/1, the full importance of the slump can be appreciated. In other words, the 1959/60 statistics indicate a loss of some eight years of growth in this industry.

The number of establishments in the chemical industry fluctuated very little from 1945/6 (10) to 1959/60 (12) and table 56 indicates that the industry lost only one concern during the period 1956/7-1959/60. Although this concern, which manufactured industrial chemical products and went out of production, had one of the largest chemical plants in East London, the loss of its output alone was not great enough to cause so marked a

decrease in the total output of the chemical products industry as a whole. Moreover, the 1956/7-1959/60 decrease in output must be reconciled with the establishment in 1956 of a relatively large concern manufacturing paints and allied products and with an increase in the productive capacity of East London's largest chemical products factory during these years. The decrease in output for the chemical products industry as a whole, then, must be attributed as much to a decline in the productive outputs of existing concerns as to the removal of one concern, and it is significant that two large firms within East London's chemical products sector have recently experienced far-reaching administrative changes.

Apart from a decline in 1947/8, the net output statistics for the chemical products industry follow the pattern set by the industry's gross output index curve in figure 17. The value of the industry's net output increased from R744,000 in 1945/6 to R3,208,000 in 1956/7 but then dropped markedly to R1,202,000 in 1959/60. The value of net output expressed as a percentage of gross output showed a decline of from 56 per cent in 1945/6 to 47 per cent in 1959/60 while the value of materials used by the chemical products industry increased from 44.4 per cent of gross output in 1945/6 to 52.8 per cent in 1959/60.

In spite of the adverse trends experienced by the industry during the latter stages of the post-war development era, the manufacture of chemical products for both the industrial and the consumer markets could play an important role in the establishment of an industrial complex in the East London area. The chemical products industry has a relatively high inter-industry linkage score - both backwards and forwards - and development in this sector would stimulate activity within other industrial groups. The promise of great expansion in East London's textile industries suggests an important forward linkage for the chemical products industry and there is a substantial market potential among people of all races throughout Africa for pharmaceutical products - patent medicines, low-priced perfumes, etc. If political developments were to allow for the free flow of South African products to the rest of Africa the location of industry near a port would be of advantage and East London's chemical products sector would thus be in a position to exploit the export market. Table 60 has already shown that more than 60 per cent of materials used by the chemical products industry are imported and

location near a port is thus all the more important.

The construction industry

The construction industry provides the least continuous of all the gross output index curves for East London's major industries. The growth in output achieved by this industry from 1945/6 to 1950/1 was substantially higher than that recorded by any other sector, with the notable exception of the transport industry.[1] The value of gross output for the construction industry rose from R796, 000 in 1945/6 to R3, 650, 000 in 1950/1 and the gross output index rose from 100 to 459 during the same period, but the industry appears never to have recovered from the setback it suffered in the 1951/2 recession. During the years 1950/1 to 1959/60 the index of gross output for the industry fluctuated considerably, falling as low as 300 in 1956/7 but recovering to reach 453 in 1959/60. However, the level of activity within the industry was higher in 1950/1 than in any other year during the period reviewed.

The construction industry cannot be classified as either a consumer-goods industry or a capital-goods industry. Thus the stage of development achieved by any area is not necessarily reflected in its performance. The industry is, however, very susceptible to the slightest fluctuations in the general level of economic activity and it is to be expected that general cyclical movement will be reflected to an exaggerated degree in its returns. But while the performance of the industry may indicate accurately the rate of new industrial expansion within an economy, it does not reflect expansion of output within existing industries. In East London, the rapid growth of the construction industry from 1945/6 to 1950/1 is a symptom of the spate of new developments which took place in the area's industrial sector as a whole - the number of establishments increased from 135 to 240 during this phase of development, and output expanded rapidly. But although output for industry as a whole continued to increase during the years from 1951/2 to 1959/60 the number of establishments actually declined, and the absence of any large-scale new development prevented the construction industry from increasing its output after 1950/1. The slight recovery which followed the initial slump in the industry's output in 1951/2 can be attributed to the establishment of two large industries in East London in 1952 and 1953 (textiles and electrical machinery) but these developments were not sufficient to offset the general

decline in building activity. The industry's net output reached a peak in 1952/3 and again in 1959/60, but apart from these slight deviations the net output curve follows closely the pattern set by the curve for gross output. Expressed as a percentage of gross output, the value of the industry's net output decreased from 50 per cent in 1945/6 to 47 per cent in 1959/60, while the value of materials used by the industry rose from 49.3 per cent of gross output in 1945/6 to 55.7 per cent in 1959/60.

Number of establishments in relation to output

In order to assess more accurately the relative importance of each of the major industrial sectors with regard to the development and future of East London as a whole, it is necessary to ascertain firstly the value of output per establishment and secondly, the ratio between capital and output for each of the sectors. The most significant increases in both gross and net output per establishment over the period 1945/6-1959/60 were recorded in the textile and foodstuff industries. The remarkable increase in average output given for the textile industry is somewhat misleading, in that the figures given for 1945/6 include those relating to industrial groups 5, 10, 11 and 23, each of which has a comparatively small average output. A more realistic figure for the value of gross output per establishment for the textile industry in 1945/6 would be in the region of R200,000, but even on this basis the textile industry showed remarkable improvement in terms of output per establishment up to 1959/60, ranking above the food industry in this respect. The addition of two large-scale plants to East London's textile sector during the post-war period accounts for the rapid increase in average output, while the food industry benefited largely from expansion within existing establishments.

Table 61

Value of gross and net output per establishment for the leading industrial sectors : R000

Gross output:	Foodstuffs	Textiles	Chemicals	Construction
1945/6	96	93	121	61
1959/60	461	1,176	213	67
Net output				
1945/6	42	46	68	30
1959/60	154	706	100	31

The considerable increase in the number of establishments in the construction industry - from 13 in 1945/6 to 54 in 1959/60 -

together with the fact that the industry failed to maintain the rate of expansion in output achieved during the immediate post-war years, accounts for the relatively minor increases in average output recorded for this industry. The construction industry has not, in effect, shown itself to be a major growth sector since 1951. In the chemical products industry, the great expansion in average output shown up to 1956/7 was abruptly reversed by the rapid decline in output experienced after that year. During the period 1945/6-1956/7, the value of gross output per establishment in the chemical products industry increased from R121,000 to R486,000 but fell to R213,000 by 1959/60.

Value of capital assets

In terms of capital investment during the years 1945/6-1959/60 the food industry ranked second only to the electricity supply station. But food stood alone among the manufacturing industries with a total capital investment of R4,780,000 in 1959/60, which represented an increase of 697 per cent over the 1945/6 figure of R600,000. The combined capital assets of the four leading sectors amounted to 65 per cent of the figure given for all manufacturing and construction industries in the private industrial sector in 1959/60, and food alone accounted for 39 per cent of this total. But although food ranked first among the manufacturing and construction industries in terms of the absolute value of capital assets, textiles were the most highly capitalized relative to the number of establishments. Table 55 reflects a 581 per cent increase in the value of capital assets in textiles over the years 1945/6 to 1959/60, giving a value of R1,948,000 in the latter year. The capital assets in chemical products and construction in 1959/60 were considerably lower than those in food and textiles and, in fact, table 47 has shown that electrical machinery, group 18, ranked above chemical products and construction in this respect. In 1959/60 capital assets in electrical machinery stood at R1,828,000 as against R770,000 for chemical products and R534,000 for construction. The last-named, however, returned the highest percentage increase in capital assets with an increase of 889 per cent over the years 1945/6 to 1959/60.

Table 62

Value of capital assets per establishment : R000

	Foodstuffs	Textiles	Chemicals	Construction
1945/6	20	17	14	4
1959/60	154	390	64	10

Although the 1945/6 textile industry statistics include figures for the four related groups (5, 10, 11 and 23), the increase in the value of capital assets per establishment recorded for the textiles over the years 1945/6 to 1959/60 is, nevertheless, very much greater than corresponding increases within any other industrial group. By 1959/60 the average value of capital assets for establishments in the textile industry had reached the figure of R390,000 - more than twice as great as the average value given for food (R154,000) which ranked second to textiles in that year. For the years 1951/2-1954/5 the total value of capital assets in textiles was greater than in the food industry, but the absence of large-scale development in this sector during the years 1954/5 to 1959/60 saw a depreciation in the value of capital assets, while the food industry continued to expand. Table 62 indicates, however, that the textile industry has become the most intensive employer of capital in East London and it is obvious that modern techniques and machinery have revolutionised its productive processes with the replacement of a large percentage of labour. Much of the increase in capital assets shown for the textile sector can be attributed to the establishment of two large-scale plants.

Whereas all of the textile plants operating in the East London area are relatively large-scale concerns, a high percentage of those within the food industry operate on a relatively small scale to supply the needs of the local market only. Thus the average value of capital assets for establishments within the food industry is likely to remain well below that in textiles, even if the food industry as a whole continues to dominate the scene. Similarly, most other groups are comprised of a mixture of small and large-scale establishments and, unless a giant undertaking, such as an oil refinery or steel plant, disrupts the existing pattern, they are unlikely to exceed the average capital assets within the textile industry.

The existence of two large-scale battery plants in group 18 (electrical machinery) gave this industry an average of R102,000 in respect of capital assets per establishment and placed it above chemical products and construction. The average of capital assets in chemical products in 1959/60 was somewhat impaired by a fall-off in productivity during the later 1950's and by the removal of one important concern. The low sum of capital per establishment accorded to the construction industry in table

62 is understandable in view of the fact that it operates on individual construction sites with a limited amount of expensive machinery.

Table 63

Percentage increases in gross output and capital and the capital/output ratios for the leading sectors, 1945/6 to 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
Percentage increase in gross output:				
1945/6-1959/60	380	1,165	76	10
Percentage increase in capital:				
1945/6-1959/60	670	2,194	357	150
Capital/output ratios:				
1945/6	1:4.7	1:5.5	1:8.3	1:14.7
1959/60	1:3.0	1:3.0	1:3.3	1: 6.7

Table 63 indicates that there was a greater percentage increase in capital than in output in each of the leading industrial sectors during the years 1945/6 to 1959/60, and points to an increase in capital intensity during this period. But table 63 also indicates a marked increase in the ratio of capital to gross output in each of the leading sectors, which suggests that there was either an excessive amount of capital investment in East London industry in relation to the marginal efficiencies of the productive factors, or a considerable amount of unused productive capacity in 1959/60. The evidence seems to support the latter view. There was a shortage of available investment capital in 1945/6, and this would, in part, account for the relatively low ratio of capital to output in that year, but during the industrial boom years of 1945 to 1950, the increase in the value of capital assets was considerable. During the 1950's, however, the great increases in the value of industrial output that were evident in the immediate post-war years were not maintained. The East London sector as a whole revealed a declining rate of growth in output for the years 1956/7-1959/60 and it is probable that there was an excess of capacity over output which would account for the increase in the capital/output ratio.

Employment and wages/salaries

In 1945/6 the four leading sectors accounted for 60 per cent of the total industrial employment in the East London area, and for 5? per cent of the number of establishments. By 1959/60, however, the combined employment figures for the four sectors had risen to 68 per cent of the total, while their contribution to

East London's total of industrial establishments had fallen to 46 per cent. For the period as a whole the food industry provided the most important avenue of employment, although for the years 1949/50-1951/2 construction returned slightly higher employment figures than food. Employment in construction fell away during the remainder of the 1950's, as did the industry's output, and from 1954/5 onwards, textiles ranked as the second highest employer in the East London industrial area. The textile industry suffered two major setbacks - in 1951/2, when employment fell to below its 1945/6 figure, and again during the last few years of the 1950's. The 1951/2 employment slump can be reconciled with a decline in gross output, but the 1959/60 statistics indicate a rise in output, and the employment slump during the year suggests a decline within a specific sector of the textile industry, particularly when related to a corresponding decrease in the value of the industry's capital assets. The declining level of employment shown for the chemical products industry in 1959/60 merely reflects the declining productivity of the years 1956/7-1959/60.

Table 64

Number of employees per establishment for leading sectors

	Foodstuffs	Textiles	Chemicals	Construction
1945/6	56	51	33	69
1956/7	138	420	65	25
1959/60	127	387	50	31

The largest increase in employment per establishment during the years 1945/6-1959/60 was to be found in the textile industry, which in 1959/60 had an average employment of 387 persons per establishment. The next most significant increase was in the food industry, which had an average employment of 127 persons per establishment in 1959/60 compared with 56 persons in 1945/6. In the chemical products industry the rise in average employment figures was not as marked as in food or textiles, and the construction industry registered a substantial decline in average employment returns for the period. This decline resulted from a large increase in the number of establishments in the construction industry and the fall-off in building activity in East London during the mid-'fifties. There is a noticeable decline in the average employment figures for the food, textile and chemical products industries from 1956/7 to 1959/60. In the case of the textile and of the chemical products industry,

this decline merely reflects the trends already indicated by the gross output curves for these industries shown in figure 17; i.e., that of a declining rate of growth in the textile industry and an absolute decline in the value of gross output of chemical products. The value of gross output in the food industry, however, continued to show a marked upward movement during these years, and the decrease in average employment must be attributed either to the establishment of three fairly small-scale concerns or to the increase in the use of capital equipment which is reflected in the high value recorded for the industry's capital assets in 1959/60.

Table 65

Increase in employment per establishment compared with corresponding increases in capital assets 1945/6 to 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
Percentage increase in employment	127	660	52	-55
Percentage increase[2] in capital assets	670	2,194	357	150

Table 65 indicates the degree to which each of the leading industrial sectors resorted to productive techniques which favour the use of capital rather than labour during the period 1945/6-1959/60. In each case the percentage increase in capital assets was considerably higher than the corresponding increases shown for labour, and it would appear that the development of large-scale industry in East London has resulted in the adoption of capital-intensive techniques in the various productive processes. Outstanding increases in the use of capital were revealed in the food and textile sectors, with textiles in particular showing an exceptional increase in capital assets. But although the textile industry has become more capital-intensive, the high percentage increase shown for employment within this industry indicates that it still employs a fairly high proportion of labour when compared with other manufacturing industries. The labour:capital ratios given in table 66 clearly emphasise a more intensive use of capital in East London's leading industries during the years 1945/6 to 1959/60. The ratios indicate, however, that in spite of the phenominal increase in the value of its capital assets the textile industry had a higher ratio of labour to capital than either the food or chemical products industries in 1959/60. Thus, of

the leading manufacturing industries, textiles had the highest intake of industrial employment per unit of capital invested.

Table 66

Ratios of labour to capital - 1945/6 and 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
1945/6	1:R359	1:R331	1:R447	1:R60
1959/60	1:R1,216	1:R1,007	1:R1,301	1:R321

Any development of the textile sector in East London would, therefore, do more towards solving the problems of unemployment than an equal expansion of the food or chemical sectors. The construction industry has an even higher ratio of labour to capital than textiles, but it is itself dependent upon developments in other economic sectors and does not therefore have any real significance for the problems of industrial location. Although the food industry is of major importance to East London in terms of output and total employment, the large amount of capital it requires in order to employ one labourer indicates that it is not as well suited for dealing with the problems of employment in the East London area as the textile industry.

Table 67

Ratios of labour to gross output - 1945/6 and 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
1945/6	1:R1,693	1:R1,824	1:R3,709	1:R887
1959/60	1:R3,633	1:R3,039	1:R4,308	1:R2,169

The chemical products industry was in fact the most capital-intensive of all the leading sectors in 1959/60, and the ratios of labour to output given in table 67 show that the productivity of labour in chemical products in East London is higher than in any other major industry. Thus the productivity of both capital and labour in chemical products is substantially higher than in the food or textile industries, although returns on capital in construction - indicated in table 62 - were higher than the corresponding returns given for the three remaining leading sectors. But the increase in the returns of labour productivity over the period 1945/6 to 1959/60 was highest in the construction industry and lowest in the chemical products industry - in fact, the ranking of the four leading sectors in terms of percentage increases in labour productivity over the whole period was the exact reverse of the 1959/60 ranking in terms of actual productivity.

Table 68

Per capita salaries and wages for leading industrial sectors 1945/6 and 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
	R	R	R	R
1945/6	370	342	364	298
1959/60	586	657	716	620

As might be expected in view of its high aggregate level of employment, the food industry had the highest salaries and wages bill, in 1959/60 amounting to R2,304,000, of all industrial groups in East London. This does not mean, however, that salaries and wages per capita will necessarily be highest in the food industry and, in fact, the 1959/60 figures - given in table 68 - are higher in the textile, chemical products and construction industries than in food. In terms of total salaries and wages in 1959/60 the textile industry (R1,270,000) ranked second to food, followed by construction (R1,030,000), electrical machinery (R705,000), and then chemical products (R425,000). But in terms of percentage increases in the value of wages and salaries over the years 1945/6 to 1959/60, the textile industry was the foremost with an increase of 329 per cent; then followed construction (284 per cent), food (274 per cent) and chemical products (226 per cent). It should be remembered however that productivity in both the chemical products and construction industries was not at a maximum in 1959/60, and that the value of wages and salaries in these two industries was higher in the years before 1959/60.

The construction industry showed the highest percentage increase in wages and salaries per capita during the years 1945/6 to 1959/60, with an increase of 108 per cent as compared with increases of 97 per cent in chemical products, 92 per cent in textiles and only 58 per cent in the food industry. In the final analysis, however, wages and salaries per capita must be assessed in relation to the percentage of skilled workers employed. Broadly speaking, an industry which employs a high percentage of white labour can be expected to have a higher per capita wage level than an industry which employs a relatively high percentage of non-white labour. This assumption holds true for South African industry as a whole, since most non-white workers are employed in semi-skilled or unskilled capacities, and the highly paid skilled jobs are the preserves of the whites. In 1959/60, the food industry employed a total of 2,987 non-whites, textiles 1,480, construction 1,137 and chemical products

only 286. The percentage of non-whites within the total labour force of each leading industrial sector is given in table 69.

Table 69

Non-white labour statistics for the leading sectors 1959/60

	Foodstuffs	Textiles	Chemicals	Construction
Non-white employees	2,987	1,480	286	1,137
Percentages of non-whites	76	77	48	68
Non-white per capita wages	R364	R381	R357	R275

The figures given in table 69 indicate that the chemical products industry employed a relatively high percentage of skilled workers in 1959/60 and it is therefore not surprising that wages and salaries should be higher in this industry than in the remaining leading sectors, all of which employ a high percentage of non-whites. The fact that the textile industry, which had the highest percentage of non-white employees in 1959/60, had a per capita wage level for all races which was somewhat higher than the returns for all races in the food or construction industries, must be attributed to the relatively high non-white wages paid by the textile industry.

Appendix to chapter 5

THE GROWTH OF THE TRANSPORT INDUSTRY (GROUP 19) IN EAST LONDON 1945/6 to 1953/4

Although the transport industry (group 19) has been omitted from the main body of statistics relating to the East London industrial area in order to permit statistical comparability throughout the post-war period, it ranks nevertheless as one of the leading industrial groups in this area. The great percentage of concerns within the transport industry were removed to the separate automotive industry census as from 1955/6 and 1956/7 and comparable statistics for the transport industry are not available for recent years, as the returns for manufacturing concerns within the automotive industry have not been tabulated for specific magisterial districts.[3] It has been possible, however, to draw up a complete set of statistics for the transport industry in East London covering the years 1945/6 and 1953/4, and these statistics are presented below in table 70.

Table 70

Statistics relating to the transport industry in the East London area 1945/6 and 1953/4

Year	Number of establishments	Value of physical assets R000	Total employment	Total wages and salaries R000	Value of gross output R000	Value of materials used R000	Value of net output R000
1945/6	19	142	349	150	362	131	234
1949/50	37	728	830	432	1,502	850	636
1953/4	48	1,136	1,070	780	5,100	3,550	1,512
Growth index for 1953/4, 1945/6=100	253	800	307	520	1,409	2,710	646

Source: Bureau of Census and Statistics, Pretoria.

The extraordinary rate of growth achieved by the transport industry during the years 1945/6 to 1953/4 placed the industry well ahead of all other industrial growth sectors for this period. The 1953/4 gross output index, based on 1945/6 statistics, stood at 1,409, which indicates a period of outstanding growth when compared with the corresponding index numbers for food (292), textiles (259), chemical products (402) and construction (369). In terms of the actual value of gross output in 1953/4, the transport industry was the third most important in East London with

a gross output of R5, 100, compared with R8, 270 in the food industry and R5, 344 in the chemical products. Although the rate of growth in output achieved by the transport industry during the years 1945/6-1949/50 was considerably faster than that of any other industrial sector, it was during the latter period in table 70, 1949/50-1953/4, that the growth rate of the industry accelerated rapidly. The gross output index in 1949/50 was only 415, and the rate of growth revealed after 1949/50 must be attributed in very large measure to the establishment of a major motor-vehicle assembly plant in the East London area in 1949. A smaller assembly plant had been established in 1948, but its effect on the growth pattern of the transport industry as a whole was less marked.

A large number of concerns within the industry, including the vehicle assembly plants, are not industrial manufacturers in the strict sense of the word, in that they are dealing for the most part with fully-processed materials. Thus it is not surprising to find that, while the industry's gross output for 1953/4 placed it well to the fore among the major industries in East London, the net output statistics present a slightly different picture, with transport occupying only fourth place among the industrial groups. In 1953/4 the value of the transport industry's net output was only 30 per cent of its gross output, while in the same year the corresponding figures for the food, textile, chemical products and construction industries were 32, 54, 49 and 43 per cent respectively. In fact, the value of the transport industry's net output, expressed in terms of gross output, was lower than that of any other industrial group in East London - in 1953/4, group 18, with its net output 33 per cent of its gross output, returned the lowest percentage of net output among all the industrial groups not included in the analysis of leading sectors. Thus it is to be expected that the value of materials used by the transport industry will be relatively high in proportion to the industry's gross or net output. In 1953/4, the value of materials amounted to 69.6 per cent of gross output in the transport industry, which was the highest percentage in East London. The food industry had the next highest returns, with materials amounting to 67.2 per cent of gross output in 1953/4, as might have been expected from the industry's low value of net output in relation to its gross output. The establishment of the vehicle assembly plants in East London greatly increased

the value of materials used in the transport industry, as these establishments are concerned with the assembly of 'knocked-down' motor vehicle components imported from abroad.

The value of gross output per establishment in the transport industry increased from R19,000 in 1945/6 to R106,000 in 1953/4, in spite of the substantial increase in the actual number of establishments during these years - from 19 to 48, and the value of net output per establishment increased from R12,000 to R32,000 during the same period. Once again it can be seen that the establishment of the large-scale assembly plants led to a productive growth rate which favoured gross output rather than net output.

The 1953/4 growth indexes for the value of physical assets and employment in the transport industry indicate a higher percentage increase in capital assets than in employment, with a 700 per cent increase in capital as against an increase of only 207 per cent in the employment total. In 1953/4 the average value of physical assets per establishment in the transport industry was R24,000 compared with R7,000 in 1945/6, while the average employment level in 1953/4 was 22 persons per establishment compared with 18 persons in 1945/6. Thus the percentage increase in the value of physical assets per establishment was very much higher than the corresponding increase in average employment - a 243 per cent increase in physical assets as against an increase of only 22 per cent in employment. The indications are, then, that the transport industry became relatively more capital-intensive during the years in question. The ratio of capital to gross output for the transport industry increased from 1:2.5 in 1945/6 to 1:4.5 in 1953/4. The 1945/6 capital/output ratio for the transport industry showed a lower return on capital investment than any of the returns given for the four leading sectors in table 62. In 1953/4 the respective capital/output ratios for the four leading sectors were: food industry, 1:4.9; textile industry, 1:2.0; chemical products industry, 1:5.8; and the construction industry, 1:6.5. Thus, while the food industry alone showed any increase in returns on capital investment during the years 1945/6 to 1953/4, the only leading industry to show a smaller return on capital in 1953/4 was the textile industry in which the capital/output ratio had fallen to 1:2.0.

Of the 1,070 persons employed by the transport industry in 1953/4, 614 were whites, 420 Africans and 36 Coloureds. Thus

the transport industry was one of the few industries in East London with a higher percentage of whites than non-whites in its labour force. Of the 33 females employed in 1953/4, 32 were white. Salaries and wages paid to employees in the transport industry totalled R780,000 in 1953/4 giving a per capita wage level of R729 for that year. This compared with a per capita wage level of only R435 in 1945/6. The per capita wages paid by the transport industry were well above those paid by any of the four leading industrial sectors in 1945/6 and in 1953/4 - the 1945/6 per capita wages paid by the four leading sectors are given in table 68 and the 1953/4 per capita wages were as follows: food industry R518, textile industry R615, chemical products R600 and construction R544. The high percentage of whites employed by the transport industry accounted for the relatively high level of per capita wages which prevailed in the industry, but table 71 illustrates the fact that both white and non-white per capita salaries and wages paid by the transport industry in 1953/4 compared favourably with the wage rates in the other leading sectors.

Table 71

Per capita wages and salaries: 1953/4: leading sectors and the transport industry: white and non-white

Race group	Per capita wages and salaries				
	Foodstuffs	Textiles	Chemicals	Construction	Transport
	R	R	R	R	R
Whites	919	1,109	889	1,126	1,049
Non-whites	290	315	313	267	300

Increases in the labour/gross output and in the labour/capital ratios for the transport industry during the years 1945/6 to 1953/4 are indicated in table 72. The apparently high increase in the productivity of the labour force must, however, be viewed in the light of the substantial increase in the industry's capital investments during this period, and the labour/capital ratio emphasises the great increase in the value of capital assets per employee that occurred in the transport industry during these years.

Table 72

Labour:gross output and labour:capital ratios for the transport industry, 1945/6 and 1953/4

	Labour:gross output	Labour:capital
1945/6	1:R1,037	1:R407
1953/4	1:R4,766	1:R1,062

For a variety of reasons it would appear that the transport industry is not ideally suited to the conditions which prevail in the East London industrial area. At the moment it is true that the vehicle industry, which contributes so largely to the transport industry as a whole, is highly dependent upon the importation of component parts and that the advantages of location near a port are therefore considerable, but it should also be remembered that the Board of Trade is bringing pressure to bear upon the motor industry in order to increase the content of South African-made components in each vehicle assembled.[4] Thus the advantages of location near a port are likely to diminish as the percentage of local content increases. It would seem, therefore, that the transport industry in East London is unlikely to expand to any great degree unless industrialists manufacturing component parts for the motor industry can be persuaded to establish their concerns in the East London area. At present, however, the three largest vehicle assembly plants in South Africa are situated in the Port Elizabeth/Uitenhage industrial complex, and the chief market area for the motor industry is the Southern Transvaal. Thus the logical choice for firms manufacturing components would be either Port Elizabeth or the Southern Transvaal, and when it is considered that a large percentage of components are sold as spares or replacements, then such firms might choose to establish themselves in the market centre and not in Port Elizabeth. Moreover, it must be remembered that there are already a number of motor vehicle assembly plants in the Southern Transvaal area. Another major argument in favour of the location of component-part concerns in the Southern Transvaal is the availability in that area of the bulk of the raw materials required for manufacture of motor components. It may well be that those concerns manufacturing components which are made from mineral or extractive materials will be established in the Southern Transvaal or Natal midlands, while the remaining concerns manufacturing seat covers, tyres, etc., will choose Port Elizabeth. In either event, the prospects are not very good for East London, unless the expansion of its motor industry is stimulated by substantial subsidies to meet the fact that raw materials and finished products would have to be transported considerable distances to the market centres. The amount of capital already invested in the motor industry in Port Elizabeth prohibits the movement of the large

assembly plants, and East London cannot expect to supplant Port Elizabeth as the centre of the assembly industry.

The factor endowments of the East London area do not favour the development of a large transport sector, with the principal prohibiting factor being the absence of mineral resources. Moreover[1], since the transport industry has not shown itself to be a large-scale employer of non-white labour, its further expansion in East London would not be of much assistance in alleviating the unemployment problems of this area. On balance, then, East London would be better advised to concentrate on the establishment of other more labour-intensive industries within its confines.

REFERENCES

1. Vide: Table 70.
2. This is an overstatement as no allowance has been made for a rise in price of capital goods. This also holds for table 66.
3. Vide: Appendix 'A'.
4. In his address to the 1962 conference of the S.A. Motor Trade Association, Dr. S.P. Viljoen, Chairman of the Board of Trade, stated that it was hoped to increase the local content of the bulk of cars used in South Africa to at least 75 per cent by 1974 - vide Daily Dispatch (East London), 24/10/1962.

Chapter 6

EMPLOYMENT AND LABOUR PROBLEMS

Principal employment statistics, 1945/6-1959/60

The growth of East London's industrial labour force has already been dealt with in brief outline, but a more detailed statistical picture is presented in table 73 which gives, as far as is possible, a breakdown by race and sex of industrial employment in the private sector during the years 1945/6-1959/60. Accompanying table 73 are figures 18 and 19 which illustrate the fluctuating number of industrial employees throughout the years 1945/6-1959/60, and the racial composition of the labour force for the years 1945/6, 1948/9, 1951/2, 1954/5, 1956/7 and 1959/60, respectively. Figure 18 also illustrates the yearly changes in the number of whites and non-whites employed in industry in East London.

Between the years 1945/6 and 1959/60 the total number of industrial employees - excluding those employed by the transport industry - increased from 6,324 persons to 11,923 persons, representing an increase of 88.5 per cent. The employment growth indexes are given for the years 1945/6 to 1959/60 in table 74, with separate indexes for each race, and they indicate at a glance the marked discrepancies in the employment growth rates of the various racial groups. These figures emphasise the increasing importance of the non-white employee in the industrial sector of the East London economy and point to the firmly established pattern of racial inter-dependence in South African industry at large. An analysis of the fluctuations in the percentage contribution of each racial group towards the total employment figure for East London's industrial sector stresses further the extent to which industry has come to rely increasingly upon non-white industrial workers.

The broad trends indicated by table 75 are those of a declining percentage of white employees and a steadily increasing percentage of non-white employees, with African employees dominating the industrial scene. Although the actual number of white employees rose by 41 per cent during the years 1945/6 to 1959/60, the percentage of white employees in East London's industrial sector fell from 40.0 per cent in 1945/6 to 29.9 per cent in

Table 73

Employment statistics for the East London industrial area : 1945/6-1959/60 : private sector only

	Whites			Asians	Coloureds			Africans			All races		
	Male	Female	Persons	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
1945/6	1,498	1,028	2,526	20	162	185	347	3,408	26	3,434	5,076	1,248	6,324
1946/7	1,539	1,051	2,590	7	198	75	273	3,506	20	3,526	5,248	1,148	6,396
1947/8	1,750	1,178	2,928	22	206	80	286	3,844	13	3,867	5,822	1,281	7,093
1948/9	2,025	1,210	3,235	34	231	88	319	4,547	18	4,565	6,818	1,335	8,153
1949/50	2,183	1,253	3,436	47	216	74	290	4,860	23	4,883	7,306	1,350	8,656
1950/1	2,373	1,309	3,682	40	238	90	328	5,516	207	5,723	8,167	1,606	9,773
1951/2	2,370	1,252	3,622	44	283	131	414	5,017	220	5,237	7,714	1,603	9,317
1952/3	2,451	1,310	3,761	32	381	158	539	5,235	267	5,502	8,099	1,735	9,834
1953/4	2,468	1,297	3,765	59	349	380	729	5,320	556	5,676	8,196	2,033	10,229
1954/5	x	x	3,763	48	x	x	697	x	x	6,053	x	x	10,561
1955/6													
1956/7	2,145	1,288	3,433	109	341	320	661	5,876	1,541	7,417	8,471	3,149	11,620
1957/8													
1958/9													
1959/60	x	x	3,567	111	x	x	844	x	x	7,401	x	x	11,923

Source: 1956/7 figures from Special Report no.240 of the Bureau of Census and Statistics. Remaining statistics supplied by the Bureau of Census and Statistics, Pretoria.

Note: Breakdown by sex not available for the years 1954/5 and 1959/60. Figures for the years 1945/6 to 1954/5 exclude those relating to group 19 (transport industry) while the official returns for 1956/7 and 1959/60 have been modified to include data relating to those concerns which fall within the orbit of the automotive industry but which were not included in group 19. These modifications facilitate a high degree of statistical comparability and were necessitated by the census modifications outlined in Appendix 'A'.

FIGURE 18

EMPLOYMENT LEVELS IN THE EAST LONDON PRIVATE INDUSTRIAL SECTOR: 1945/6 TO 1959/60

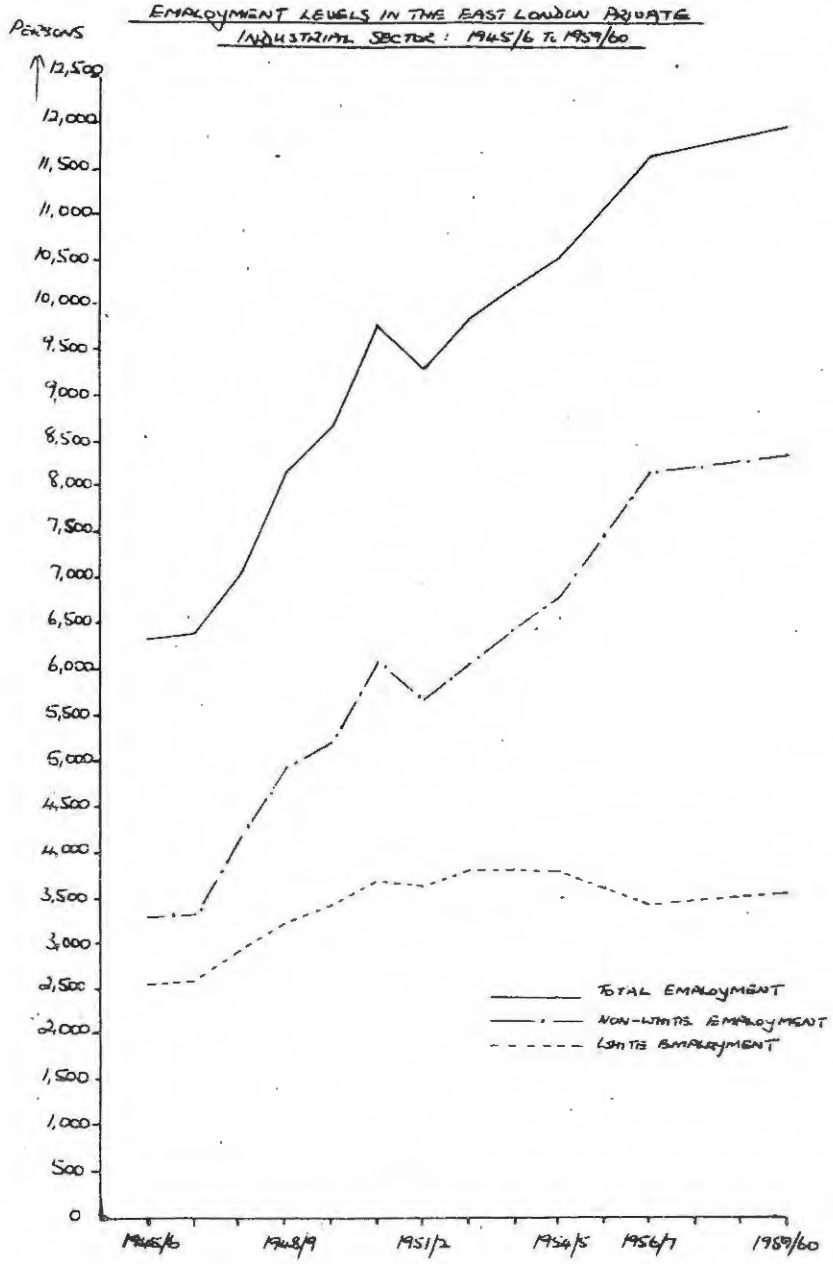


FIGURE 19

INDUSTRIAL EMPLOYMENT - EAST LONDON PRIVATE SECTOR : 1945/6 TO 1959/60

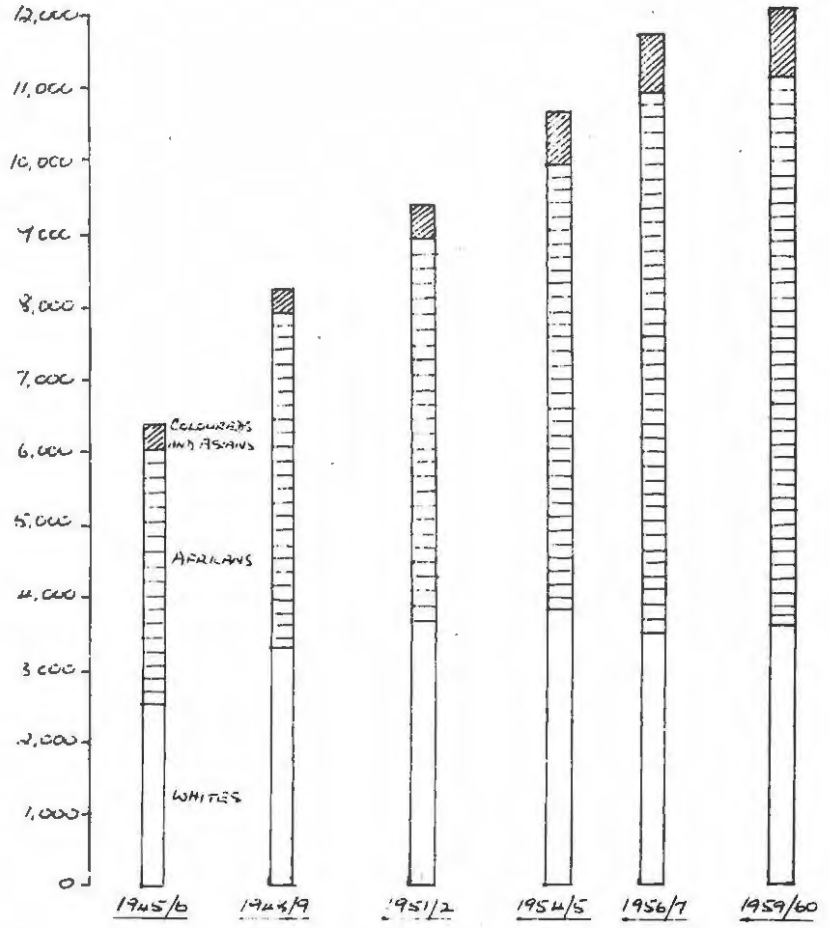


Table 74

Employment indexes: 1945/6 to 1959/60 - 1945/6=100

Year	Whites	Africans	Coloureds	Asians	All races
1945/6	100	100	100	100	100
1946/7	103	103	79	85	101
1947/8	115	112	89	110	112
1948/9	128	133	92	170	129
1949/50	135	142	94	235	137
1950/1	145	157	95	300	154
1951/2	143	152	129	320	147
1952/3	149	160	155	160	156
1953/4	149	165	217	295	162
1954/5	149	176	201	240	167
1955/6*					
1956/7	135	216	190	545	184
1957/8*					
1958/9*					
1959/60	141	216	243	555	189

(* indicates figures not available for these years.)

1959/60. On the other hand, the number of Africans employed in industrial jobs in East London increased by 116 per cent during these years and the percentage of African employees rose from 54.3 per cent to 62.1 per cent over the same period.

Table 75

Employment by race as percentages of total employment

Year	Percentage of total employment figures			
	Whites	Africans	Coloureds	Asians
1945/6	40.0	54.3	5.5	0.2
1950/1	37.7	58.5	3.4	0.4
1953/4	36.8	55.5	7.1	0.6
1956/7	29.5	63.8	5.7	1.0
1959/60	29.9	62.1	7.1	0.9

Although the number of coloured and Asians employed in East London industry is not large enough to warrant detailed attention, it is significant that the growth rates given for both these groups are higher than those recorded for either Africans or whites. The number of Asian employees is particularly small and the very high index number shown in table 74 for the 1959/60 Asian employment level must be viewed in this light. Field research, however, has indicated a definite tendency in recent years towards the employment of coloured operatives and semi-skilled workers in specific industrial sectors - notably the food industry. As a group, the coloured community has reached a more advanced stage of general development than the Africans and they are essentially an urban people. It is reasonable to suppose, therefore, that a coloured worker will adapt himself to the demands of an industrial economy more easily than will an

African worker. The comparatively small number of coloured industrial workers in East London must be related to the small number of coloureds actually living in East London.

The number of white industrial employees in East London rose from 2,526 persons in 1945/6 to 3,567 persons in 1959/60, but the most significant aspect of white employment is that the 1959/60 figure is considerably less than that recorded for 1950/1. There was, in fact, an absolute decline in the number of white industrial employees in the East London area during the last nine years of the period under review. The maximum level of white employment was achieved in 1953/4 with 3,765 persons but there was a decrease of 115 persons over the years 1950/1-1959/60. The decrease in the number of white employees evident during the years 1954/5 to 1956/7 can be attributed in part to the census modifications of 1955/6, but the absence of any overall increase in white employment during the 'fifties is surprising, particularly when contrasted with the substantial increases in total employment during these years, and the sustained growth in output.

Given the decline in white employment between 1950/1-1959/60 it is not surprising to find that figure 18 reveals a marked increase in the divergence between the white and non-white employment curves for these years. The number of African industrial employees increased from 5,723 in 1950/1 to 7,417 in 1956/7 and, although a slight decline was recorded for the years 1956/7-1959/60, the 1959/60 employment level for Africans showed a substantial improvement over the 1950/1 figure. The major growth period in total employment did, however, occur during the initial phase of East London's post-war development and figure 18 indicates that during the years 1945/6 to 1950/1 the white and non-white employment curves followed similar if not parallel growth patterns. The white employment index improved from 100 in 1945/6 to 145 in 1950/1 while the African employment index stood at 167 in the latter year. Both white and non-white employment levels suffered a decline during the recession of 1951/2, but thereafter the two curves follow completely different courses, with the non-white employment curve continuing on an upward course, although at a slower rate of growth than that recorded for the first phase. Comparison of the total employment curve with the gross output curves given in figures 10 and 11, makes it clear that fluctuations in indus-

trial employment in East London have provided sound indicators of movements in the level of industrial output, as both these curves follow very similar patterns over the years 1945/6 to 1959/60 - even to the point of showing a declining rate of growth during the last development phase, 1956/7-1959/60.

Although a breakdown by sex of the employment statistics is not given for the final year of this analysis, the returns given in table 73 indicate that the increase in the number of females employed in industry from 1945/6 to 1956/7 was much greater than the corresponding increase in male employment. The total number of females employed rose from 1,248 in 1945/6 to 3,149 in 1956/7 representing an increase of 152 per cent, while the number of males increased from 5,076 to 8,471 over the same period, giving an increase of only 67 per cent. The increase in the number of white females employed was not, however, particularly great, and it is to the non-white groups - and more especially to the African employment statistics - that one must look in order to trace the rapid growth in the number of female employees. The number of African females employed in East London industry increased from 26 in 1945/6 to 1,541 in 1956/7 but this increase was not spread uniformly over the whole period, since by 1953/4 the number had risen to only 356. Thus the period 1953/4 to 1956/7 warrants more detailed attention with regard to African employment.

The years 1953/4 to 1956/7 also represent a period of significant fluctuation in the number of males employed, not in terms of total employment figures, but in terms of the marked decline in white males and the increase in African males employed during these years. In 1956/7 the number of white males was somewhat less than that given for 1949/50. In spite of the substantial decrease in the number of African males employed in 1951/2, the increase recorded for years 1953/4-1956/7 was sufficient to bring the African male employment figure to a new peak.

Table 76 gives the employment statistics relating to specific industrial groups in the East London private sector for the years 1946/7, 1950/1, 1953/4, 1956/7 and 1959/60, and it is from this group analysis that a more detailed picture of employment trends emerges. The group statistics confirm the dominant position of the food industry in the East London area and also reflect the importance of the textile, construction, chemical products and

Table 76

Employment by industrial groups : all races : 1946/7-1959/60

Group	Employment				
	1946/7	1950/1	1953/4	1956/7	1959/60
1, 2	1,715	2,111	2,354	3,865	3,932
3, 13, 20, 22	260	404	531	218	133
4, 10, 11	881	968	1,343	2,181	2,048
5		269	264	183	199
6	484	167	213	195	231
7		291	282	261	266
8, 9	211	240	274	413	467
12	342	540	748	842	592
14	532	651	534	515	418
15, 16	856	533	719	476	793
17		231	219	268	
18		367	505	673	838
21	1,115	2,718	1,951	1,238	1,661
23		281	291	333	345

electrical machinery industries. The combined employment figures for the four leading sectors - the food, textile, chemical and construction industries - increased from 63 per cent to 68 per cent of East London's total industrial employment during the years 1946/7 to 1959/60, and the food industry alone accounted for 33 per cent of total employment in the latter year. Thus the food industry contributed over 30 per cent of both employment and gross output for the East London area in 1959/60.

The food, paper and printing, electrical machinery and personal services industries were the only ones to have revealed a continuous pattern of growth in total employment numbers throughout the post-war period. Although electrical machinery (group 18) was one of the industries most affected by the 1955/6 census modifications, the establishment of a large battery plant in East London in 1953/4 was sufficient to offset the loss in employment caused by the removal of several establishments from this group in 1955/6. Groups 8 and 9 (paper and printing) showed steady improvement in terms of output and employment. Of the three remaining leading sectors, the textile industry showed considerable expansion in employment up to 1956/7, but the final phase, 1956/7 to 1959/60, saw a slight reduction, although output increased during the same years, and there was no change in the number of establishments. The same pattern emerged for the chemical products industry, in which the fall-off in employment numbers recorded for the final phase can be attributed to the loss of one large-scale concern and to a decline in the productive efficiency of two others.

Fluctuations in employment in the construction industry can

be related very closely to fluctuations in the industry's gross output. The peak employment level in the construction industry was achieved in 1950/1, at the height of the post-war boom. Thereafter the numbers employed decreased from 2,718 in 1950/1 to 1,238 in 1956/7, but the years 1956/7 to 1959/60 represent a period of recovery, with both employment and output showing an increase. The 1959/60 employment level was, however, considerably below that of 1950/1. During the mid-'fifties the construction industry suffered from a slowing down in the rate of new developments in the East London area, whether on an industrial, commercial or domestic plane. Increases in industrial output during these years appear to have been realised by the fuller utilization of existing plant capacities, and only in a few cases did industry in East London arrive at the point where diminishing returns to scale necessitated an increase in plant capacity.

The decline in the employment figures returned for the miscellaneous group of industries (groups 3, 13, 20 and 22) after 1953/4 must be attributed in large measure to the 1955/6 census modifications. The reduction in the employment figures in groups 15 and 16 during the years 1953/4-1956/7 can be reconciled with a decrease of from 15 to 11 establishments in these groups during the same years. In the remaining groups, however, fluctuations in the employment levels can be related to movements in output or increases in the use of capital equipment.

Table 77

Numerical and percentage fluctuations in employment by major-industry groups - 1946/7 to 1959/60

Group	Employment	
	Actual increase	Per cent increase
1, 2	2,217	129
3, 13, 20, 22	-127	-49
4, 5, 10, 11, 23	1,366	194
6, 7	13	3
8, 9	256	121
12	250	73
14	-114	-21
15, 16, 17, 18	775	91
21	546	49

It is unfortunate that census regulations and modifications prevent the presentation of more detailed data relating to specific industrial groups in table 77, more especially in view of the fact that two of East London's important industries (textiles and electrical machinery - groups 4 and 18) have had to be

coupled with several other groups. However, the percentage increases in employment which took place within these two industries during the years 1950/1-1959/60 are sufficient to indicate their importance as industrial employers relative to the other sectors with which they have been coupled. During the period 1950/1-1959/60 employment within the textile industry alone (group 4) increased by 109 per cent while the corresponding increase in the electrical machinery industry (group 18) was 128 per cent - higher, in fact, than the total increase recorded for the combination of groups 15-18.

Thus the leading growth sectors in terms of employment were the food, textile, paper and printing and electrical machinery industries. The growth in the number of persons employed in the chemical products industry was seriously interrupted by the declining productivity of this industry during the last few years of the post-war period. The employment growth rate for this industry during the years 1946/7 to 1956/7 was high, with an increase of 146 per cent. In the construction industry, an increase in employment numbers of 144 per cent for the initial growth phase, 1946/7-1950/1, was followed by a period of marked decline. The absolute decline in the employment level of the furniture and fixtures industry (group 7) during the years 1950/1-1959/60 was responsible for the relatively minor increase in the employment returns of the wood products industries as a whole (groups 6 and 7).

Racial composition of employment by industrial groups

Table 78 gives a breakdown by race of East London's industrial employment statistics for the years 1946/7, 1950/1, 1953/4 and 1959/60.[1] Separate statistics have been given for white and African workers, but coloureds and Asians have been grouped together as the number of Asians employed in industrial jobs is very small. The overall fluctuations in employment indicated by table 78 are summarized below in table 79 which gives the percentage increases or decreases in employment figures for the three main race groups in each of the major-industry groups. Of the three race groups, only minor importance should be attached to the returns given for the coloured and Asian group, as at no time during the period reviewed did these races contribute more than 8 per cent of the total industrial labour force in East London. The only significant increase in coloured and Asian employment occurred in the food industry during the years

Table 78

Racial composition of employment within major industry groups - 1946/7 to 1959/60

Group	1946/7 White	1946/7 African	1946/7 Coloured and Asian	1946/7 Total non-white	1950/1 White	1950/1 African	1950/1 Coloured and Asian	1950/1 Total non-white	1953/4 White	1953/4 African	1953/4 Coloured and Asian	1953/4 Total non-white	1959/60 White	1959/60 African	1959/60 Coloured and Asian	1959/60 Total non-white
1, 2	920	746	49	795	1,034	1,029	48	1,077	866	1,239	249	1,488	945	2,579	408	2,987
3,13,20,22	73	158	29	187	132	257	15	272	180	313	38	351	52	64	17	81
4,10,11	311	475	95	570	239	718	11	729	514	777	52	829	489	1,545	14	1,559
5					145	81	43	124	75	68	121	189	61	26	112	138
6	243	227	14	241	92	74	1	75	94	112	7	119	97	110	24	134
7					155	131	5	136	145	132	5	137	96	151	19	170
8,9	170	40	1	41	188	50	2	52	196	71	7	78	264	117	86	203
12	161	160	21	181	276	234	30	264	371	331	46	377	306	245	41	286
14	54	459	19	478	75	538	38	576	66	440	28	468	72	317	29	346
15,16					198	322	13	335	248	429	42	471	264	511	18	529
17	362	487	7	494	95	134	2	136	94	124	1	125				
18					193	172	2	174	227	275	3	278	298	518	22	540
21	296	774	45	819	792	1,878	48	1,926	634	1,265	52	1,317	524	1,053	84	1,137
23*	-	-	-	-	68	103	110	213	55	100	136	236	91	136	118	254

* Statistics relating to group 23 for the year 1946/7 are included with those figures given for groups 4, 10, 11 and 15.

1950/1-1959/60, when a fairly large number of coloured semi-skilled workers were given employment in one particular concern.

Table 79

Percentage fluctuations in employment by race and industrial groups: 1946/7 to 1959/60

Group	Whites		Africans		Coloureds & Asians	
	Actual increase	Per cent increase	Actual increase	Per cent increase	Actual increase	Per cent increase
1,2	25	3	1,833	246	359	733
3,13,20,22	-21	-29	-94	-59	-12	-41
4,5,10,11,23	330	106	1,232	259	149	157
6,7	-56	-21	34	15	29	207
8,9	94	55	77	193	85	8,500
12	145	90	95	53	20	95
14	18	33	-142	-31	10	53
15,16,17,18	200	55	542	111	33	471
21	228	77	279	36	39	87

One of the most interesting features of table 79 is the very small increase in the number of whites employed by the food industry. During the years 1946/7-1959/60 their numbers increased by only 3 per cent, compared with an increase of 246 per cent in African employment during the same period. These figures are the more remarkable when related to the very considerable increase in the output of the food industry during this period and provide some evidence of the increasing productivity of the non-white labourer. There was actually a decline in the number of whites employed in East London's food industry during the years 1950/1 to 1959/60. Although the employment figures for groups 3, 13, 20 and 22 showed increases up to 1953/4, the census modifications of 1955/6 were responsible for a sharp reduction in the numbers shown as employed within group 20 during the phase 1953/4-1956/7, and the decline continued up to 1959/60 owing to decreasing activity within these groups as a whole. In the textile, clothing and related industrial groups (4, 5, 10, 11 and 23) a substantial increase in employment was recorded for each race group, but, as in the case of the food industry, the increase in African employment was much greater than the increase among the whites. In fact, in the textile and clothing industries, the 1959/60 white employment returns showed a decrease when compared with the 1953/4 figures. In groups 6 and 7 (wood products) the number of white employees decreased during the period, while the non-white employment figures showed steady improvement, and in groups 8 and 9 (paper and

printing) employment figures for all race groups increased during each phase of development, although once again the percentage increase was higher for Africans than for whites. In the chemical products industry employment declined in all three race groups during the years 1956/7 to 1959/60, when the industry suffered a severe set-back, and this accounts for the decreased employment shown for the years 1953/4-1959/60 in table 78. The chemical products industry, however, provides one of the few cases in which the percentage increase in white employment - and, in fact, the numerical increase - was higher than in African employment. The non-metallic mineral products industry (group 14) gives another example of a higher percentage increase in white employment, and in this group the level of non-white employment declined over the period as a whole. Although employment decreased for all races in groups 15, 16 and 17 (metal products and machinery) during the years 1953/4 to 1959/60, the rapid expansion achieved by group 18 (electrical machinery) after 1953/4 was sufficient to allow for a relatively high rate of increase in employment for all races within the combination of groups 15-18 over the whole period from 1946/7 to 1959/60. Employment in the construction industry reached its maximum in 1950/1 but, although both white and African employment for 1959/60 revealed substantial decreases when compared with the figures for 1950/1, the statistics taken for the post-war period as a whole showed an increase for every race group.

It is now possible to isolate the particular industrial groups responsible for the fluctuations in employment during the period 1953/4-1956/7. The first important trend to emerge from the figures was the very marked increase in the number of African female industrial employees, attributable in large measure to the food and textile industries (groups 1 and 4). In the food industry employment rose by 1,511 persons, from 2,354 in 1953/4 to 3,865 in 1956/7 and in the textile industry employment increased by 819 persons, from 1,278 in 1953/4 to 2,097 in 1956/7. Clearly, the rise in employment in the food industry was the most significant, and field research has in fact indicated that it is the major employer of female labour in the East London area. Detailed statistics are not available, but inquiries within the industry suggest that the most important opportunities for African females occur in the canning and preserving branch,

which expanded considerably during the pineapple boom of the mid-'fifties. Employment in this branch is subject to seasonal fluctuations but it provides a valuable addition to non-white family incomes, which badly need to be supplemented.

The increase in the number of African males employed in industry in East London during the years 1953/4-1956/7 can also be attributed largely to expansion in the food and textile industries, but the effects of expansion in these sectors were considerably lessened by a large decrease in output and employment in the construction industry, and by the removal of a number of establishments following on the 1955/6 census modifications. These factors alone may well have accounted for the fall-off in the number of white male employees during the years in question.

Capital, labour and output

Although the curves illustrating fluctuations in gross output and employment in East London's industrial sector during the years 1945/6 to 1959/60 display similar growth patterns, the level of employment within any industry is by no means synonymous with the level of output. The pattern of growth may be similar in both cases but the respective rates of growth are unlikely to be the same. With 1945/6 as the base year, the growth index for East London's gross output had risen to 386 by 1959/60, but the employment index for the same year had only risen to 189, indicating a faster rate of growth in output than in employment. Thus it may be assumed that either the productivity of labour in East London had increased markedly or that industry in East London had benefited from a more intensive use of capital. As an industry becomes more capital-intensive, an increase in output can be achieved in spite of a reduction in the labour force, by the substitution of capital for labour and by the reorganization of factor inputs, depending upon the marginal productivity of the given factors. In a number of cases, the statistics for gross output (table 42) revealed an increase in output accompanied by a decrease in employment (table 76). During the years 1946/7-1950/1, for example, groups 6 and 7 (wood products) registered an increase in gross output but a decline in employment. Similarly, during the period 1953/4-1956/7 groups 7, 14, 15 and 16 showed an increase in output but a reduction in employment, and during the years 1956/7-1959/60 the textile group (4, 10 and 11) experienced a declining employ-

ment level accompanied by an increase in output.

The extent to which the productivity of the industrial labour force has been increased by the reorganization of factor inputs in the East London area during the years 1946/7-1959/60 is illustrated in table 80, which gives the increased levels of output per employee for each group of industries during that period.

Table 80

Relationship between employment and output: 1946/7 and 1959/60

Group	1946/7	1959/60
1,2	1:R1,864	1:R3,633
3,13,20,22	1:R1,400	1:R2,211
4,5,10,11,23	1:R1,927	1:R2,677
6,7	1:R1,545	1:R2,716
8,9	1:R2,047	1:R2,848
12	1:R4,456	1:R4,307
14	1:R530	1:R1,091
15,16,17,18	1:R1,247	1:R2,801
21	1:R1,015	1:R2,168

It is significant that the only industry in which there was a reduction in the value of output per employee was the chemical products industry (group 12), and the decrease in this case can be attributed wholly to the declining level of productivity experienced by the industry during the years 1956/7-1959/60. But the general increase in the value of gross output per employee did not arise so much from an increase in the efficiency of the average labourer as from increased amounts of capital inputs during these years. An examination of table 81 reveals that only one industrial group in the East London area - the paper and printing industry (groups 8 and 9) - experienced a decrease in the amount of capital invested per employee during the years 1946/7-1959/60. The remaining industrial groups showed substantial increases in the value of capital assets per employee, which indicate a strong trend towards more capital-intensive techniques of production. The paper and printing industry, however, became more labour-intensive during the years in question, with the amount of capital per employee decreasing from R925 in 1946/7 to R664 in 1959/60 in this industry. The combination of groups 3, 13, 20 and 22 includes the electricity power station and this accounts for the very high degree of capital intensity revealed by these groups in 1959/60. Excluding the combination of the above groups, the electrical machinery industry (group 18) was the most capital-intensive industry in

East London in 1959/60, with a capital investment of R2,181 per employee. The chemical products, food and textile industries occupied second, third and fourth places respectively in their degree of capital-intensity and each of these industries had a capital investment of over R1,000 per employee. The made-up textiles industry (group 5) and the construction industry (group 21) were the least capital-intensive industries in 1959/60, but apart from the construction industry it is evident that the major industrial sectors in East London are all relatively highly capital-intensive. It should be remembered, however, that practically all of East London's larger-scale industrial establishments are confined to the four industrial groups which showed the highest degree of capital intensity. In general, it is only when an industry enters the field of large-scale production that capital-intensive techniques prove to be more economical than labour-intensive techniques. Given the same scale of production in both industries, the metal products industry, for example, might well have shown a greater degree of capital-intensity than the textile industry, but, in fact, the reverse was the case in 1959/60 when the scale of production in the textile industry far exceeded the productive scale in the metal products industry. However, it is clear that of all the large-scale industries, the textile industry revealed the least degree of capital intensity and this fact strengthens the argument for the promotion of the textile industry in East London.

Table 81

Value of capital assets per employee: 1946/7 and 1959/60

Group	1946/7	1959/60
1,2	1:R437	1:R1,216
3,13,20,22	1:R2,300	1:R79,804
4,10,11	1:R359	1:R1,171
5		1:R302
6	1:R388	1:R978
7		1:R714
8,9	1:R925	1:R664
12	1:R550	1:R1,301
14	1:R233	1:R617
15,16,17	1:R414	1:R739
18		1:R2,181
21	1:R50	1:R322
23*		1:R412

*Statistics relating to group 23 for 1946/7 are included in those relating to groups 4, 10 and 11.

Table 82, which gives the increases in employment and capital assets for each group of industries in East London during the years 1946/7-1959/60, emphasises the extent to which the majority of industries have increased their inputs of capital relative to their inputs of labour. Once again it is clear that the only industry to have shown a higher percentage increase for employment than for capital was the paper and printing industry (groups 8 and 9). The most substantial increases in capital assets were shown by the food, textile, chemical products and electrical machinery industry groups - the industries which showed themselves to be the most capital-intensive in 1959/60 - and it is precisely these groups which showed the greatest differences between the percentage increases in employment and the percentage increases in capital.

Table 82

Increases in employment and capital: 1946/7-1959/60 per group establishment

Group	Employment		Capital	
	Actual increase	Percentage increase	Actual increase	Percentage increase
1,2	52	69	126	450
3,13,20,22	-9	-47		
4,5,10,11,23	24	55	242	1,513
6,7	-24	-50	30	167
8,9	17	49	2	6
12	15	44	46	256
14	-6	-16	12	150
15,16,17,18	15	44	130	929
21	-81	-72	4	67

Salaries and wages by industrial groups

Table 83 contains a breakdown by industrial groups of wages and salaries paid to all employees in East London's private industrial sector (excluding group 19 - the transport industry) for selected years during the period 1946/7-1959/60. The four leading industrial groups in terms of wages and salaries paid in 1959/60 were the food, textile, construction and electrical machinery groups and it is significant that these industries ranked as the four leading employers of industrial labour in the same year. The decline in output experienced in the chemical products industry during the years 1956/7 to 1959/60 was responsible for the sharp decrease in both employment and wage statistics for this industry in 1959/60. Thus the chemical products industry did not rank as a leading sector in terms of wages/salaries for that year. Being a variable productive factor, labour can be

reduced in a period of declining productivity more easily than capital which comprises fixed assets.

Table 83

Salaries and wages by industrial group: all races: 1946/7 to 1959/60

Group	Salaries and wages (R000) 1946/7	1950/1	1953/4	1956/7	1959/60
1,2	670	1,022	1,228	1,714	2,303
3,13,20,22	102	200	320	124	81
4,10,11)	310	380	832	1,279	1,345
5)		148	108	98	108
6)	274	98	130	133	167
7)		214	200	216	214
8,9	194	252	352	442	521
12	128	280	448	564	425
14	106	160	184	210	201
15,16)	384	284	446	222)	646
17)		118	152	184)	
18)		198	330	606	705
21	362	1,088	1,066	788	1,030
23		100	124	140	143

Percentage increases in employment and wages/salaries: 1946/7 to 1959/60

Group	Employment	Wages/salaries
1,2	129 (2)	244 (3)
3,13,20,22	-49 (9)	-21 (9)
4,5,10,11,23	194 (1)	412 (1)
6,7	3 (7)	39 (8)
8,9	121 (3)	168 (6)
12	73 (5)	232 (4)
14	-21 (8)	90 (7)
15,16,17,18	91 (4)	252 (2)
21	49 (6)	185 (5)

(Figures in brackets indicate ranking in terms of increases.)

Wages and salaries statistics are, however, of little value in an analysis of industrial trends unless they can be related to detailed fluctuations in the employment level. Moreover, wages and salaries paid to employees do not increase or decrease proportionately to fluctuations in the employment level as wages vary considerably according to the level of skill acquired by the workers. For instance, table 36 has shown that the average non-white per capita wages in the East London area were somewhat less than one-third of the average level of white per capita wages during the years 1945/6-1959/60. Thus an industry showing an increase of 100 white employees will show a higher rate of increase in wages and salaries than an industry showing an increase of 250 non-white employees. In addition, wages paid to the same class of labour might well vary from industry to industry. Thus

it is that the 1959/60 ranking of industrial groups in the East London area in terms of wages and salaries does not correspond exactly to the ranking in terms of employment. Table 83 indicates, moreover, that the respective rankings in terms of increases in wages/salaries and employment during the period 1946/7-1959/60 do not exactly coincide.

Increases in per capita wages and salaries (all races) within each group of industries in the East London sector are given in table 84 for the years 1946/7 to 1959/60. But increases in per capita wages and salaries should also be related to increases in employment as between the two major race groups - whites and non-whites. Thus table 84 includes the percentage of non-whites employed by each industrial group in 1946/7 and 1959/60.

Table 84

Increases in per capita wage levels for each group of industries and percentage of non-whites employed: 1946/7 to 1959/60

Group	1946/7		1959/60	
	Per capita wages/salaries (all races) R	Percentage of non-whites employed	Per capita wages/salaries (all races) R	Percentage of non-whites employed
1,2	391	46	585	76
3,13,20,22	392	72	609	61
4,5,10,11,23	352	65	615	75
6,7	567	50	766	61
8,9	919	19	1,116	44
12	374	53	718	48
14	199	90	481	83
15,16,17,18	449	58	828	66
21	325	73	620	68

For both years, 1946/7 and 1959/60, the highest per capita wages and salaries were paid by the paper and printing industries (groups 8 and 9) but it is very significant that this group of industries had the lowest percentage of non-white employees. Thus during both years the paper and printing industry employed a relatively high percentage of skilled labourers which would naturally tend to push up the level of per capita wages. At the other end of the wages scale, the non-metallic mineral products industry (group 14) revealed the lowest per capita wage levels for both years but the percentage of non-whites employed by this industry indicates a relatively low percentage of skilled workers. In general, then, a low per capita wage level accompanied a high percentage of non-white or relatively unskilled workers, but the actual number, and not merely the percentage, of non-

whites employed should also be considered. For instance, the food industry in 1946/7 had a relatively low percentage of non-white employees (46 per cent) but there were three groups of industries which returned higher per capita wage levels than did the food industry, although the percentage of non-whites employed by these three groups was considerably higher than the percentage of non-whites employed by the food industry. This apparent contradiction of the general trend in per capita wage levels results from the high number of non-whites employed by the food industry (795 persons in 1946/7).

Table 85

White and non-white per capita wages and salaries by industrial groups: 1953/4 to 1959/60

Group	1953/4		1959/60		Per cent increase 1953/4-1959/60	
	Whites	Non-whites	Whites	Non-whites	Whites	Non-whites
	R	R	R	R		
1,2	919	290	1,287	364	40	25
3,13,20,22	1,178	308	1,038	333	-12	10
4,10,11	1,109	316	1,530	383	38	21
5	826	243	983	348	19	43
6	1,106	219	1,309	299	18	36
7	1,048	350	1,458	435	39	24
8,9	1,613	462	1,636	438	1	-5
12	889	313	1,055	357	19	14
14	1,182	222	1,750	217	48	-2
15,16,17	1,304	255	1,758	344	35	35
18	1,128	266	1,681	378	49	42
21	1,126	267	1,368	275	21	3
23	982	297	637	335	-35	13

Table 85 indicates that the leading industrial sectors did not return the highest per capita wage levels for either white or non-white workers. In 1959/60, the metal products and machinery industries (groups 15, 16 and 17) returned the highest per capita wages for white employees (R1,758) while the paper and printing industry (groups 8 and 9) returned the highest per capita wage level for non-whites (R438). In 1953/4 the paper and printing industry had the highest per capita wage levels for both race groups. Of the four leading sectors (the food, textile, chemical products and construction industries) the textile industry returned the highest per capita wage levels for both race groups in 1959/60, with a white per capita wage of R1,530 and a non-white per capita wage of R383. It is significant that the chemical products industry, although employing a relatively high percentage of white workers, had a low ranking in terms of white per capita wages in both 1953/4 and 1959/60. This was due to the fact that

the chemical products industry employed a relatively high percentage of female labour. Similarly, the clothing, personal services and food industries (groups 5, 23 and 1), which also employ a large number of white females, returned relatively low per capita wages for white employees. It is clear that the levels of per capita wages - both white and non-white - in each group of industries should be measured against the percentage of skilled labour employed by that industry. Generally speaking the engineering type of industry (groups 14-18) employ a high percentage of skilled whites and very few females, and wages in these sectors are thus relatively high. Similarly, the industries which employ a high percentage of semi-skilled non-white labour - the textile, printing and wood products industries - returned comparatively high non-white per capita wage levels. On the other hand, the non-metallic mineral products and construction industries (groups 14 and 21) employ a high percentage of non-white manual labourers and the per capita wage level for non-whites in these groups was correspondingly low.

The most significant increases in white per capita wages and salaries for the period 1953/4-1959/60 were evident in the electrical machinery (49 per cent), the non-metallic mineral products (48 per cent) and the food (40 per cent) industries. The textile and furniture industries (groups 4 and 7) also returned high percentage increases for white per capita wages. Percentage increases in non-white per capita wages were high in the clothing (43 per cent), electrical machinery (42 per cent), wood products (36 per cent) and metal products (35 per cent) industries. It is noticeable that the four leading industrial sectors did not feature prominently in these wage increases, and that the paper and printing industries (groups 8 and 9), which in 1953/4 and 1959/60 had the highest per capita wage level for all employees, returned an increase of only 1 per cent for white wages and a surprising decrease of 5 per cent for non-white wages.

Real wages and money wages

It is necessary to distinguish between increases in real wages as against increases in money wages. During the preceding analysis of wages and salaries, all increases have been measured in terms of money wages only, but it should be remembered that there was a considerable decrease in the purchasing power of one unit of money during the years 1945/6 to 1959/60. Thus the

real wage increases have not been as high as previous figures have indicated. Increases in wages should be judged against the increase in the cost of living for the average consumer, which is measured by the official retail price index.

Based on 1953 prices, the retail price index in South Africa rose from 69.7 in 1946 to 117.0 in 1960.[2] These figures indicate a considerable rise in the cost of living and increases in money wages should be adjusted accordingly. Table 86 gives wages and salaries for non-whites in the East London industrial sector at current and constant (1953) prices for the years 1945/6 and 1959/60. The money wages and salaries paid to white employees increased by 221 per cent during the years 1945/6-1959/60, but in real terms the increase was only 89 per cent. Money wages paid to non-whites increased by 268 per cent during the same period but in real terms the increase was only 119 per cent. The real increase in wages and salaries paid to all races was 100 per cent.

Table 86

Wages and salaries at current and constant prices - R000
1945/6 and 1959/60

	At current prices			At 1953 prices		
	Whites	Non-whites	All races	Whites	Non-whites	All races
1945/6	1,582	766	2,348	2,270	1,099	3,369
1959/60	5,076	2,820	7,896	4,300	2,410	6,744
Actual increase:	3,494	2,054	5,548	2,030	1,311	3,375
Percentage increase:	221	268	236	89	119	100

It should be emphasised, however, that the official cost-of-living indexes for the Republic are drawn up to reflect the living standards of the average white working-class family and are, therefore, subject to many influences which do not obtain among African families. F.P. Spooner[3] maintains that since 1938/9 the cost-of-living for Africans has risen faster than the cost-of-living for other race groups within South Africa. He estimated that the rise in living costs among African families during the period 1938/9-1953/4 was 152 per cent compared with a corresponding increase of only 108 per cent for whites.[4] On the basis of these statistics, Spooner arrived at the disturbing conclusion that the real purchasing power of African families had decreased during the years 1938/9-1953/4, although the official statistics indicated an increase. It is quite probable, therefore, that living

costs for Africans have continued to increase faster than living costs for whites and the increase in real wages given for Africans in table 86 would thus be somewhat higher than was, in fact, the case.

SOME ASPECTS OF THE AFRICAN LABOUR PROBLEM WITHIN THE EAST LONDON MUNICIPAL AREA

Perhaps the most pressing socio-economic problem confronting South Africa today is the question of poverty and unemployment among non-whites in general, and African people in particular. The problem has much in common with the world-wide concern for the under-developed economies. In South Africa, however, the close juxta-position of a highly advanced economy and an under-developed economy has given rise to a dual socio-economic structure which presents very real obstacles to any solution of the development problem. The problem becomes magnified in areas such as East London and its natural hinterland which have a high percentage of 'backward' peoples attempting to eke out a living without the support of large-scale industry or agricultural wealth. More attention will be devoted to the important aspects of visible and concealed unemployment among the Africans in the reserved territories of South Africa in general at a later stage, but the initial pages of this chapter will attempt to throw some light on the population pressures facing the East London Native Administration Department, whose task it is to meet the increasing demands of the local urban African populace.[5]

The largest of the African townships within East London's municipal boundaries is Duncan Village, but this report includes estimated returns for the West Bank and Cambridge townships as well. The estimated figures for the African population of these three townships for the years 1961 to 1965 are contained in table 87.

Table 87

Population of African locations in East London

Year	Persons
1961	52,500
1962	54,100
1963	55,700
1964	57,400
1965	59,100

These figures represent the total population of Africans residing in East London's African townships but do not include those Africans residing in other sectors of the East London

urban area - the latter group would include domestic servants and hotel staff living on the premises. The figures given in table 87 for the years 1961 and 1962 are based on Municipal Census returns while those for 1963/5 are merely estimates based on an average population increase of approximately 3.05 per cent per annum. The Municipal Native Administration authorities suggest, however, that the above figures should be increased by 15-25 per cent in order to arrive at a more realistic figure for the townships' population totals. It is no simple matter to conduct an accurate census in any African urban settlement and the population tends to fluctuate daily. There are large numbers of Africans resident in East London's townships who manage to avoid influx controls and in respect of whom there can be no official records. Thus, official population returns tend to be misleading, and the 1962 population of the East London African townships could well have been in the region of 65,000 persons.

The level of employment has not, however, kept pace with the ever-increasing pressure of population. In fact, table 88 reveals that the employment level for African males has shown a steady decline since 1959.

Table 88

African male employment in East London

Date	Native male employees
April 1959	18,856
April 1960	17,084
April 1961	17,060
April 1962	15,576
October 1962	16,468
June 1963	16,212

The decline in the level of employment revealed by table 88 is likely to cause grave unemployment problems if allowed to continue. A slight recovery was recorded for the month of October 1962, when the number of African males employed rose to 16,468, but this figure was still far short of the 1959 level for April and, in June 1963, the employment level had fallen back to 16,212. With very little large-scale industrial development the employment opportunities in the East London area are, as yet, limited, and there are apparently few employment vacancies which cannot immediately be filled. Structural unemployment, where jobs exist but cannot be filled owing to lack of skills or qualifications, obtains in most societies but in East London

the problem goes far beyond these limits. African families in the surrounding rural areas - including the Transkeian territories - are unable to subsist on the fruits of their primitive agricultural pursuits, owing to a shortage of land and to a lack of technical knowledge, and they are forced to seek work in the urban areas in order to supplement their meagre earnings from the land. The urgent need is, therefore, to create avenues of employment within the urban areas for those who are likely to be redundant upon the land if successful agricultural reform takes place. In East London, however, far from there being an increasing number of employment outlets, the number of Africans employed appears to have decreased by alarming proportions. Seasonal fluctuations can influence the level of employment, but the 1958 monthly figures for African male employment remained consistently above the 18,000 mark, while the 1962 figures averaged just on 16,000. Seasonal fluctuations in the number of jobs available occur mainly in the canning and preserving industries which employ a large percentage of African females and such fluctuations are, therefore, more likely to influence female employment levels than male employment levels.

It is estimated that from East London alone between 750 and 1,000 Africans reach the age of employment each year. These figures represent those Africans leaving school and to them must be added the natural increase in population growth for each successive year. The fact that there are as many as 750-1,000 young African males coming onto the labour market annually creates in itself a major problem and this is augmented by a persistent pressure from those Africans coming into the city from the rural areas. It is alleged that many of the young African males are becoming increasingly 'work-shy'. Their attitude to work possibly stems, in the first place, from the lack of employment opportunities at the time of their initial entry into the labour market and a vicious circle is thus set in motion. Large numbers of them do not appear to be keen on employment in the mining areas of the Transvaal and Orange Free State and would rather join the growing ranks of the unemployed than accept jobs which they consider too exacting or too hard. Such jobs include the building trade, which can involve heavy manual labour, and a consequently high turnover of African labour is one of the major difficulties of the building industry.

Table 89 gives a breakdown of African male employment

figures into the various fields of employment prevailing in the East London area. The figures are given for the months of June 1958, January 1961, December 1961, and June 1963, and they indicate those fields in which employment levels have decreased.

Table 89

African male employment by field of employment

Field of employment	Numbers employed			
	June 1958	January 1961	December 1961	June 1963
Agriculture	47	198	175	134
Quarries	141	51	39	63
Factories and industries	4,064	4,163	3,950	3,788
Building industries	1,071	793	927	1,291
Government works	221	115	101	188
Railways	2,243	2,584	2,313	2,005
Municipality	1,996	1,526	1,797	1,967
Provincial administration	82	300	390	249
Commerce	6,472	4,602	3,582	5,350
Hotels and flats	444	441	305	433
Domestic service	1,384	1,133	1,324	744
TOTALS	18,168	15,906	14,903	16,212

The outstanding features of the employment figures given in table 89 were the net decreases in the number of African males employed in both of East London's major economic sectors - industry and commerce. In the field of commerce, there was an extraordinary decline in the number of African male employees during the period from June 1958 to December 1961, in which employment figures slumped from 6,472 to 3,582. It is generally accepted that December is a month in which most factories close down for the holiday season and one might, therefore, expect the employment level in industry to fall off during this month. Such a situation, however, cannot be said to obtain in the commercial sphere of activity - in fact, one might expect the numbers of persons employed by commercial establishments to rise during December in view of the large volume of sales transacted over the holiday period. Thus there appears to be little reason for the marked decline in commercial employment in 1961 other than the fact that the level of commercial activity had itself declined. East London has always been far more of a commercial and distributive centre than an industrial one, and in the period between the two world wars commercial interests were very much against the establishment of industry. This opposition has no doubt contributed towards the slow rate of industrial development, but it now seems ob-

vious that East London should look more and more to industry for its economic advancement, and commerce in general must rely on an increased rate of industrial development if the business world of East London is to continue to thrive.

The first six months of 1963 have been conspicuous for the vigorous approach which has been adopted by all bodies responsible for the promotion of industrial development in East London. The efforts of the City Council to encourage industrialists to settle in this area have received the full support of government institutions detailed to foster the industrialization of 'border areas' in general. In addition to the large textile mill which has been located on the King William's Town road, at Arnoldton, just outside the municipal boundaries of East London, there is reason to hope that the combined efforts of the city council and government institutions will result in the establishment of further industrial concerns in this area. 1963 has been a year of considerable optimism in East London's business world and commercial returns have improved steadily. Thus the recent upsurge in commercial activity, initiated as it was by trends in the industrial sphere, resulted in an increase in African male employment, and the commercial employment figures given in table 89 increased from 3,582 in December 1961 to 5,350 in June 1963.

There was a slight increase in the number of African males employed in industrial capacities during the period from June 1958 to January 1961, but the industrial employment level fell from 4,163 persons in January 1961 to 3,788 persons in June 1963. It is obvious, therefore, that the fruits of the recent drives for the promotion of industry in East London have not yet been enjoyed by the industrial sector itself but it is to be remembered that there is a time-lag between the day on which it is decided to establish an industry in any given area and the day on which it comes into operation. Thus employment and output levels in the industrial sector will derive no immediate benefit from the actual decision to establish an industry, apart from an increase in employment in the construction industry, whereas the increased optimism that results from a programme for industrial expansion can be reflected in the commercial returns from the very beginning. It can be expected, however, that future months will see a marked increase in the numbers of African males employed by industry.

The number of African males employed by the Railways increased slightly during the period 1958 to 1961, but the 1963 level was slightly lower than the 1958 level. The Railways have long provided a very satisfactory source of employment for Africans in East London and it is to be hoped that the increase in rail traffic resulting from the trend towards industrialization and the establishment of the new African town at Mdantsane will give rise to additional employment in this field. Although the African employment level in East London's municipal departments showed a surprising decrease during the years 1958-1961, more recent development programmes have succeeded in restoring the employment level for June 1963 almost to the 1958 figure. It is of vital importance to East London that the urban amenities should keep pace with the demands of the increasing population and the development and improvement of such facilities should be continued. The Provincial Administration and the Government Works departments do not rank as major employment avenues for African males, but the increased number of Africans employed by the Provincial Administration over the period as a whole reflects an increase in activity in road construction.

The slump in building activity in East London during the late 'fifties and early 'sixties is indicated by the employment returns for the industry in 1961. The number of African males employed by the building industry fell from 1,071 persons in June 1958 to 793 persons in January 1961, but the employment figure rose to 1,291 in June 1963. This increase reflects the marked upsurge in building activity in 1963, particularly in the central city area of East London. The increase in the number of agricultural workers results from the gradual development of the Amalinda area where small holdings are cultivated. Although the employment statistics for hotels, flats and domestic service revealed a marked decline during the years 1958 to 1963, it should be remembered that the great percentage of domestic servants are females and there has been a growing tendency towards employing females in these fields at the expense of African males. The number of female domestic servants in June 1963 was 6,548 which indicated a slight increase over the figure given for the previous year.

The total increase in employment figures for African males recorded during the period 1961 to 1963 is encouraging, but the

1963 figure remained well below the employment level given for 1958, and the number of Africans employed in all economic sectors in East London will have to increase substantially if the African urban economy is to develop. Although there are no detailed statistics available with regard to African female labour for all economic sectors it is evident that recent years have seen a considerable increase in female employment - table 73 has, in fact, indicated a sharp rise in the industrial employment figures for African females between the years 1953/4 and 1956/7, from 357 to 1,516 persons respectively. Experience has shown African females to be particularly adaptable to the conditions demanded of them in the textile and food-processing industries and these are two industries which appear to have considerable growth potential in the East London area. But the need is more vital for an increase in employment opportunities for African males.

At present, the overcrowding in most native reserve territories, and particularly in the Transkei, demands the removal of a large number of Africans from the land. The introduction of successful agricultural reforms, which entail the division of the land into economic farm units, will remove large numbers of African peasant farmers from the native reserve territories. Thus one cannot look to the land to provide the employment for the unemployed or under-employed Africans and it is only by increasing the rate of industrial development, particularly in the more backward areas, that the per capita incomes of the non-whites will be increased. The vital function of industrial development as a source of employment is clearly illustrated in the example cited by D. Hobart Houghton[6] in a recent article published by the Institute of Race Relations. The example refers to the native territories of the King William's Town district in the Ciskei, which cover an area of 135,000 morgen and support a population of 68,000 Africans or 11,400 families. But detailed planning, which is already under way in the area, indicates that at present there can be no more than 3,400 full economic agricultural units. In the transition period the land can be expected to support little more than one-third of the present population at anything above mere subsistence levels, leaving industry and commerce to absorb the remaining two-thirds as well as the entire natural increase in population. However, this assessment may have to be modified as the improvements in agricultural

yields, achieved through more intensive soil conservation and sounder farming practices in general, may result in a reduction in the acreage of an economic farming unit. In the same district, however, a single textile factory is capable of supporting more African families than the entire farming area, and at an average wage of R384 per annum, which is somewhat in excess of the estimated yearly return to be obtained from one agricultural unit.

Thus it seems certain that the urban areas of South Africa can expect an increasing rate of growth in their African populations resulting from the influx of Africans from the rural areas, though the government hopes to alleviate African population pressures in existing white urban centres by establishing African urban settlements within the reserved territories. But the very real danger in the Ciskei and other more backward areas of South Africa lies in the fact that population pressures have, to a large degree, preceded industrialization and planned economic development. Urbanization alone will not increase per capita incomes and the establishment of urban communities without sufficient economic backing will result in the rapid deterioration of such settlements into urban slums. But urbanization accompanied by a high degree of industrialization is likely to result in a substantial rise in per capita incomes and these forces together tend to overcome the economic and social evils of the extended family system and the practice of migrant labour movements. An example of an urban area established without sufficient economic backing is provided by the African township of Kayaletu in the Victoria East district. In a survey of this township, conducted by D. Hobart Houghton,[7] it was found that the average monthly income of an African family was R11-96 - well below the minimum income of R25 required to sustain the average family on a subsistence level. Most families were dependent upon the monthly remittances of migrant workers, which averaged out at R8-53 per family per month and thus not only has the establishment of the Kayaletu settlement failed to curb the migrant labour practice, but African families in the village are unable to subsist even with the additional earning power of the emigrant workers. Tertiary employment in such settlements is limited and 74 per cent of the families living in Kayaletu were classified as poor or very poor, having great difficulty in making ends meet.

Thus it is essential for future African townships to be provided with industrial foundations if unemployment and poverty are to be avoided. Even in Zwelitsha, near King William's Town, which has the Good Hope Textile factory as its chief avenue of employment and has proved the most successful attempt to date in the establishing of African urban communities, there are insufficient employment outlets for females. In the East London area, the government has decided to establish an African township at Mdantsane, on the main road to King William's Town. It is proposed that this township should absorb the entire African population of East London as well as the influx of Africans from rural areas and from the Western Cape. Thus Mdantsane must be able to support well over 100,000 Africans in the near future and it is clear that the present scale of industrialization in East London is not sufficient to absorb the number of potential industrial workers who will be living there. Fortunately however, the government is actively engaged in the promotion of industry in the East London area and it may well be that large-scale industrialization will result from the response to the challenge arising from the need to find gainful employment for vast numbers of Africans.

Labour stability

The African male employment figures given in table 90 suggest a degree of labour stability in East London somewhat greater than that recorded in the initial survey of the Border Region. Table 90 gives the monthly turnover rates for African males in East London during 1962.[8]

Table 90

Rate of labour turnover among African male employees

Month	Employees	New employment Registrations	Per cent turnover per month
January	15,906	966	6.1
February	15,765	933	6.2
March	15,803	1,073	6.5
April	15,576	589	3.8
May	15,749	948	4.9
June	15,922	772	3.8
July	16,135	756	3.4
August	16,071	772	4.8
September	16,276	1,017	4.9
October	16,468	1,217	6.2
November	16,543	1,155	6.5
December	16,501	674	4.1
		Total turnover for 1962:	61.2

The turnover of 58.8 per cent per annum for May 1962 for African male employees compares with a turnover of 119 per cent per annum for May 1956.[9] The increasing threat of unemployment may have caused this reduction in the rate of turnover. It is noticeable that labour tends to be far more stable in the winter months than in the summer, as from April to September the turnover rate varied between 3.4 per cent and 4.9 per cent per month, while during the summer months turnover varied between 4.1 and 6.5 per cent per month. It would seem that competition for employment is at a peak during the winter months among Africans and this tends to force down the rate of turnover, while during the summer months the competition is eased somewhat by the absence of numbers of African males who return to their homes in the reserves to tend to their crops.

In spite of the recent decline in the level of employment revealed in table 88, the number of employers has remained fairly constant since 1956. The number of employers drawing labour from the African townships can be gauged by the amounts paid in each month to the Native Services Levy fund. In terms of an Act of Parliament promulgated in 1952, each employer of African labour, except in cases where the employees are domestic servants or reside at their place of work, is obliged to render a monthly payment to the Native Services Levy fund. In September 1956, the number of employers stood at 1,004 and in April 1962 it had risen only to 1,064. There are surprising monthly fluctuations in the amounts paid into the Levy which seem to contradict any suggestion of constancy in the number of employers, but considerable difficulty is experienced by the authorities in exacting the monthly levies on time.

Table 91

Monthly fluctuations in Native Services levies and Labour Registration fees

Month	Native Services levy R	Registration fees R
July 1962	12,124	3,050
August 1962	13,892	4,133
September 1962	10,875	3,683
October	13,290	4,199

Table 91 illustrates the extent of the monthly fluctuations in the amounts payable both to the Native Services Levy and in the form of Registration fees. A registration fee of 20 cents per

month per male employee is payable by each employer, (the amount payable would increase to 25 cents per head if the East London municipality were to assume responsibility for non-white transport services, which, at present, are run by private enterprise). In recent years income has been declining for both the Native Services Levy and the Registration fund, thus emphasising the declining employment levels. The trend seems to have been to increase wages and reduce staff at the same time, thereby defeating the principal aim of increasing the purchasing power of the Africans in general by raising their wage levels. It should be pointed out, however, that the returns for both funds cannot be regarded as being truly representative of the level of employment as substantial amounts are outstanding each month, and no fees are payable in the case of female staff. There are also cases where firms choose not to register their labour and in spite of the fact that labour pools exist for their benefit, they appear to prefer to employ 'scab' labourers who are probably underpaid owing to their ignorance of existing wage determinations. The fact that use is being made of unregistered labour, particularly by some stevedoring companies, makes it difficult to assess with any degree of accuracy the level of employment among non-whites in East London.

Clearly, however, the declining numbers of African males employed in all sectors of the East London economy indicate an alarming degree of unemployment, and the exploitation of unregistered labour adds to the general problem by generating conditions of concealed unemployment. The situation in the East London labour market is likely to deteriorate if the rate of economic expansion is allowed to lag further behind the rate of population growth.

REFERENCES

1. A racial breakdown of employment by industrial group is not available for 1956/7.
2. Vide S.A. Reserve Bank's Quarterly Bulletin of Statistics no.61, September 1961, p.24, table XXIV.
3. Spooner, F.P., South African Predicament, Jonathan Cape (1960), see especially the Appendix.
4. Spooner, F.P., op.cit., p.285.
5. The information contained in this report - including the statistical data - was supplied by the Manager of the East London Native Administration Department during the course of several interviews. It should be pointed out, however, that opinions expressed in this thesis are in no way attributable to that person, but are the responsibility of the writer alone.

6. Hobart Houghton, D., 'Economic Development in the Reserves', Race Relations Journal, Vol.XXIX, no.1, January/March 1962, p.10.

7. Hobart Houghton, D., idem, p.17 et. seq.

8. The turnover rate has been calculated by taking the number of new employment registrations for each month minus any increases in employment during the months in question. This is taken to represent the actual turnover and is expressed as a percentage of the employment in each month. Decreases in employment have been ignored.

9. Vide Economic Development in a Plural Society, O.U.P. (1960), ed. D. Hobart Houghton, p.314.

Chapter 7

CURRENT OPINIONS AND PAST EXPERIENCE

The approach to this study of the industrial development of the East London area has been statistical. Nevertheless, the practical observations of the industrialists themselves must also be taken into account. A mass of figures may illustrate the course of development, but it is upon the experience of the individual that the economist must rely for an explanation of the statistical pattern which has emerged. It is the industrialists who create, expand or even dissolve the individual enterprises, and with whom must rest the final choice which will influence the future.

The bare figures give no indication of the difficulties which have beset East London's industrial path nor, indeed, do they relate any of the advantages which the area may claim. For this reason, in order to make this study as comprehensive as possible, additional information was sought from particular concerns and from municipal and other local authorities and organizations, such as the Chamber of Industries. It is unfortunate, however, that this inquiry was undertaken during the years 1961 and 1962, during a period of recession amounting almost to a depression, so that the deductions of industrialists themselves incline towards a sombre view. The reader will bear this in mind when forming his own judgment of the future.

The information contained in this chapter is derived from two principal sources. In the first place, certain industrial concerns were asked to complete a questionnaire drawn up and distributed under the auspices of the Rhodes University Institute of Social and Economic Research, and in the second, representatives of a number of leading industries, municipal officials, etc. were interviewed in order to obtain a cross-section of opinions on the development pattern in East London, and to clarify and expand points raised in the questionnaires and statistical analyses.

The questionnaire was designed to cover problems dealing with employment and labour efficiency, raw materials, markets, production costs and industrial location. Some 45 industrial concerns were selected from a list supplied by the Border Chamber of Industries and although the response was disappointing, with only a 50 per cent return on completed questionnaires,

the combined gross output of the 23 establishments which pleted the questionnaire represented approximately two- or 40 per cent of the total output of the East London priva dustrial sector in the year 1959/60.

The industries selected for the purposes of the questior survey cover a specifically wide range of activities, incl all the leading industrial growth sectors dealt with in chap In addition to the questionnaire, extensive use has been ma a series of notes compiled by Dr. G. Lumsden in 1956 as of the initial Border Regional Survey,[1] which cover va aspects of East London's industrial and commercial ecor Finally, where specific information was lacking or inconcl the writer has made use of information gathered by mea field research work in the East London area itself during and the first half of 1963.

Table 92

Group classification of responsive industries

Group	Number of establishments
1	4
2, 3, 13, 20, 22	1
4, 10, 11	1
5	1
6	2
7	1
8, 9	1
12	4
14	-
15, 16	3
17	1
18	2
19	2
21	-
23	-
TOTAL	23

Of the total of 23 industrial establishments which compl the questionnaire, only 8 described themselves as fully i pendent concerns. The remaining 15 fell under the categor subsidiary or branch companies, with headquarters in o centres. Ten of these subsidiary companies were under the trol of South African parent companies, four of the other parent organizations were based in the United Kingdom and remaining one in the United States of America. The indepen concerns ranged over major-industry groups 1, 6, 7, 12, 15, 18 and 19 and four of the 8 could be classified as large-s

industries. Each major industrial group had approximately the same representation of independent and subsidiary companies.

Aspects of industrial location in East London

One of the more important objects of the questionnaire was to discover what lessons industrialists had learned from practical experience of their operations in East London. Their replies indicate that the principal factors which influence the choice of any centre for the establishment of an industry include land, labour and capital, raw materials, water, markets, harbours, transport and communications. Other factors which might influence the choice are climatic conditions and favourable industrial overheads, among which would be the price of land and of electricity and water, and the rates payable on sites and buildings.[2]

Table 93

Factors influencing the location of 23 industrial establishments in East London

Industry	group	Factors influencing location						
		Labour	Land	Markets	Harbour	Transport	Water	Climate
A	1			x	x			
B	1	x	x	x				
C	1	x	x	x	x	x		
D	1			x	x			
E	4	x	x		x		x	x
F	5			x				
G	6			x				
H	6			x				
I	7	x		x	x			
J	9			x	x			
K	12	x	x		x			x
L	12			x				
M	12		x					
N	12			x				
O	13			x				
P	15			x				
Q	16			x	x	x	x	
R	16		x	x	x			
S	17	x		x	x			
T	18	x			x	x	x	
U	18				x			
V	19	x	x		x			
W	19	x	x		x	x		
TOTAL		9	8	16	14	4	3	2

'x' denotes an affirmative response

Table 93 gives an analysis of the reasons for settling in East London given by the 23 establishments which replied. Several industrialists offered more than one reason and the returns do

not, therefore, tally with the number of establishments replying. It is noticeable that of the factors influencing the choice of area, capital and raw materials and the existence of favourable industrial overheads appear to have been ignored. Their absence from this list was to be expected. The hinterland of East London does not as yet produce much except agricultural products, and it was not until the establishment of the National Finance Corporation in 1948 and a number of discount and acceptance houses and institutions such as the Industrial Development Corporation in the middle 'fifties, that the South African money market began to fulfil its function of providing capital for investment.[3] Municipal and Divisional Council rates, the price of land and the cost of electricity, among the most important of the industrial overheads, have long been a contentious issue in East London. The great majority of the industrialists who were approached, whether in person or by questionnaire, complained of at least some of the overheads of production, and not one spoke in favour of their influence on the establishment of industry.

A surprising feature of table 93, in view of a popular belief to the contrary, is that most of the replies indicated that the existence of ready markets was an important reason for settling in East London. The chief markets of South Africa are the Witwatersrand, the Durban-Pinetown area, and the Western Cape, which are also the three leading industrial areas. Considerations of density of population and purchasing power in the hinterland of East London, added to the presence of large numbers of impoverished non-whites, hardly favour the existence of a substantial market. Local markets do exist, however, and several lesser industries have sprung up to cater for them.

The high cost of railing the finished product from a manufacturing area to the distributing centres has resulted in a certain decentralization of South African industry. Thus it might well be to the advantage of a manufacturer in the Witwatersrand area to establish a subsidiary in East London to supply the needs of the local market. The cost of its establishment would be weighed against the cost of distributing the manufactured commodity from the central factory, and, since the existing railway tariff policy is unfavourable to the transport of finished products, a number of the larger companies would consider the establishment of local subsidiaries. In the East London area this process can be observed in the foodstuff industry, especially where perishable

products are concerned. Obviously there must be a fairly considerable market for foodstuffs in the hinterland and it is evident that the majority of food-processing establishments in East London are in some way tied to a parent company elsewhere in the Republic. Thus, three of the four food-processing industries given in table 93 market their products predominantly in the hinterland. The remaining establishment, industry 'A', operates on a nation-wide basis but, as indicated in table 94, would prefer to be in the Witwatersrand area.

Table 94

Reasons for desiring another location

Industry	Group	Dissatisfaction with present location	Area preferred	Reasons for desired change			
				Transport	Markets	Raw materials and components	Overheads
A	1	x	Rand		x	x	
B	1						
C	1						
D	1						
E	4						
F	5	x	P.E.		x		
G	6						
H	6						
I	7						
J	9						
K	12	x	Rand	x	x		
L	12						
M	12	x	Rand		x		
N	12						
O	13						
P	15						
Q	16						
R	16	x	Rand	x	x		
S	17	x	Rand	x	x	x	x
T	18	x	Rand	x	x	x	x
U	18	x	Rand		x		
V	19	x	P.E.	x		x	x
W	19	x	Rand		x		x
TOTALS		10		5	9	4	4

'x' denotes an affirmative response
Rand denotes the Witwatersrand area
P.E. denotes Port Elizabeth.

Of the total of sixteen industries which gave the existence of markets as one of the reasons for their original choice of East London, as many as eleven are subsidiary concerns operating almost exclusively to serve the needs of the local markets. Of the remaining five independent industries, three market their commodities on a national basis and the other two were established to cater for the demands of the East London area only.

Harbour facilities

The harbour facilities offered to the industrialist who establishes his plant in East London unquestionably provide the area's greatest single industrial attraction. Thirteen of the total of twenty-three firms concerned with the questionnaire gave the existence of harbour facilities as one of the main reasons for their settling in East London, and it is significant that all the large-scale enterprises are included in the thirteen. Most of the industries which settled in East London because of the port facilities employ heavy imported machinery and they have thus eliminated the considerable expense of transporting it to the interior. Industries connected with the transport sectors import a great many component parts and raw materials from abroad, and proximity to a port is an advantage. Ocean transport is used for distributing goods to other centres in the Republic, and any industry having an eye on potential export markets would do well to establish itself at the coast. On the other hand, the increasing development of South Africa's natural resources, both mineral and agricultural, will reduce the need of some industries to be at the coast; and, as more and more basic materials become available in South Africa itself, a good many industries previously established near a port might find themselves at a disadvantage because South Africa's reserves of basic resources are largely centred in its industrial interior. The motor industry is a case in point. The S.A. Board of Trade is desirous of increasing the percentage of local content in all motor vehicles assembled in South Africa. The most obvious centre for industries producing component parts for the motor industry as a whole might well be in the vicinity of the supply of the basic metals in the Transvaal, but the motor industry is at present centred on Port Elizabeth. The problem is whether the extent of present capital investment in the motor industry at coastal centres (notably Port Elizabeth) is of sufficient magnitude to discount the possibilities of transfer of assembly plants to the Witwatersrand. If this is so would it not be wiser economic policy and, in fact, less expensive in the long run, to establish the component parts industries at the coast?

At present most businesses which have settled in East London to be near a port have done so because of their need to import basic materials and machinery. The quantity of East London-manufactured commodities exported is hardly worthy of mention

at the present time and the desire to be at the coast for export purposes appears to have been due either to wishful thinking on the part of the industrialists concerned or to very long-term market forecasting. It is true that at present political developments have robbed several industries in South Africa of potential markets elsewhere in Africa, but it is equally certain that our export markets must be expanded if the nation's industrial economy is to realise its full potential.

Labour

The supporters of a large-scale programme of industrial development in the East London area maintain that the Border area as a whole contains an unlimited supply of industrial labour obtainable at low cost. The question of the supply of so-called 'cheap labour' in the East London area will be dealt with at greater length in the remaining chapter. At this stage, however, it should be emphasised that the 'cheapness' of any labour force must be related directly to its productive skill and efficiency. African labour might well be procurable in most parts of South Africa at wages well below the average wage payable to the factory worker in Europe, but, labour can only be considered cheap or otherwise in relation to the level of skills it has acquired, and the East London area is sorely lacking in institutions capable of training African labour for industrial purposes. Nor has East London the industrial background of Johannesburg which has stimulated the growth of an industrially-committed labour force on the Witwatersrand.

Less than half the businesses responding to the questionnaire listed the supply of labour as a reason for being established in East London, which suggests that too much emphasis may have been laid on the value of the reserves of labour existing in the area. There is, in fact, only one instance of an industry coming to East London specifically because of its labour supply, and this concern moved down from the Witwatersrand just after the First World War during the period of industrial strikes in the early 1920's. On the other hand, table 94 reveals that not a single industry wishes to change its present quarters in East London for any reason connected with the supply of labour.

Seven of the total of nine establishments which chose East London because of the existing supply of labour referred more to the non-white than to the white labour supply. Lack of opportunities of employment in recent years has forced a great many

white workers to leave the area, and research in the industrial field revealed that commerce was attracting young white men away from industrial jobs by offering higher wages to beginners.

Land

Eight industrialists stated that the availability of industrial sites was one of the reasons for establishing their concerns in the East London area. In the immediate post-war years, when the majority of these industries were established, land was available at reasonable prices and rail facilities were extended along the West Bank industrial sites and in the light-industrial area of Arcadia (see map 3). The question of land availability at present is dealt with in detail in Appendix 'D', but the prevailing shortage of fully-serviced industrial sites causes some anxiety to East London local authorities who are intent on expanding the industrial complex of the region.

The fact that land was made available to industrialists in the post-war years points to a reversal of the policy that held sway in the 1930's in East London, when requests to establish industries in this area made on behalf of the large American motor firms, were refused on the shortsighted grounds that the 'beauty' and 'serenity' of the city was on no account to be disturbed by industrial interests. Such policy has cost East London dear in terms of industrial development, but it is encouraging to note the change of heart among local politicians. The cost of land itself may not weigh very heavily in the establishment of a large industry, but the industrial facilities, which include rail spurs and water and power services, are really important.

Transport

The majority opinion of industrialists held that the railway rating policy hinders the establishment of industries away from the chief market centres as the rates are loaded against the transport of finished products. It appears, then, that manufacturers would prefer to be settled in the market centres, and this would weigh against the establishment of any national concern in East London, unless the proximity of a harbour is of equal or greater importance. The four industries which mentioned transportation as being in their favour were arguing in terms of the central position which East London holds in relation to the four major market centres - Johannesburg, Durban, Cape Town and Port Elizabeth. Ignoring the transport costs for the moment, it is true that East London occupies an ideal position

as a distributing centre, with ocean transport available for distribution to the three major ports and direct rail communications with the Witwatersrand area. At least one of the four industrialists appeared to reckon on change in the tariff policies of the South African Railways, which would remove the disadvantages of a situation far removed from markets, but if the possibility of a change in rail tariffs is ignored, East London will remain at a distinct disadvantage compared with Johannesburg or Durban.

Water and climatic conditions

The supply of water for industrial purposes and the prevailing climatic conditions were regarded as the least important of all the factors influencing the establishment of industry in East London. Climatic conditions can be artificially simulated, though at some expense, and there appear to be substantial reserves of water in the Border area south of the Amatola Mountains. The present East London municipal water supply, however, will not be able to cater for any large-scale expansion in either domestic or industrial consumption, to meet which a new dam will have to be constructed.

Analysis of preferences for alternative location

Table 94 indicates those firms which are dissatisfied with East London and have expressed a wish to move elsewhere in the Republic. Very nearly 50 per cent of all the firms which replied to the questionnaire would prefer to settle elsewhere and one of the reasons given by each of them is either the lack of a ready market or the transport factor, which, though separately stated, are in essence the same thing. It is doubtful whether any of these will in fact go elsewhere, since the extent of their capital investments in their present situation is such that a move would hardly be worth their while. This applies particularly to the larger concerns for whom the cost of moving would be prohibitive. Table 94 does reveal, however, that there are a considerable number of industries operating in the East London area which, other things being equal, would like to transfer to more advantageous areas. It becomes immediately apparent that the Witwatersrand area provides the greatest attraction for industrialists who are dissatisfied with conditions in East London, as eight of the ten industries wishing to move expressed a definite preference for the Rand, a choice which can be easily explained in terms of marketing problems and transport difficulties.

Ten out of the total of twenty-three industries, or 43.5 per

cent, expressed the desire to move, either to the Rand or, as in the case of two concerns, to Port Elizabeth. There are, however, additional industries which have indicated their dissatisfaction with conditions prevailing in East London, but would not consider moving elsewhere, chiefly because they were originally established in this area to cater for the needs of the local markets, and any move would, therefore, defeat the object behind their establishment.

Of the four industries classified under group 1 (food) only one indicated a desire to move elsewhere, and it is significant that this concern is the only one of the four which was not established in East London for the purpose of serving the local market. The principal markets for the products of this concern are in the Johannesburg area, and establishment there would both eliminate considerable marketing costs and bring it nearer to its source of raw material. Of the chemical products industries (group 12) the concerns wishing to move, produce for national markets and find that though their market penetration in the East London hinterland is sound, saturation point is soon reached, and in the final analysis their chief markets lie beyond the confines of East London's immediate economic hinterland. Here again, distribution costs detract considerably from net profits. The other two industries in group 12 are subsidiaries of an East London industrial organization and any break away from their close association with the parent company would involve additional administrative and distribution costs.

The majority of those industries concerned with the engineering and motor sectors have expressed a preference for moving to other areas. With these heavier type of industries, however, the extent of capital investment is considerable and at this stage of their development the cost of transfer might well outweigh the advantages. It is interesting to note, however, that the greater proportion of industries in the motor world, whether assembly plants or parts manufacturers, favour a move to the Witwatersrand rather than Port Elizabeth. As suggested previously, the ultimate decision, should one be taken, will depend largely upon the decision of the component parts manufacturers as to whether they will operate from Port Elizabeth or from the Witwatersrand. State intervention, in the form of subsidies for decentralized industry, might well decide the issue for them.

Future prospects

The following summary is based upon the replies received to questions of the industrial questionnaire. A fuller analysis of development prospects for industry in East London will be given in the final chapter of this book.

Unquestionably the main issue is the railway tariff, which is regarded by 90 per cent of local industrialists as being disadvantageous to industries situated away from the sources of raw materials and the market centres. Most of the industries established specifically to cater for the needs of East London's non-competitive hinterland indicated that the government's policy of developing industries on the borders of the African reserves would assist in the expansion of markets for their own products, and they expressed themselves as being in favour of any policy designed to stimulate economic activity in the East London area. The larger concerns, operating on a national basis, considered the local market too small to be of any consequence and were more interested in government policy from the point of view of tax relief or rail concessions for 'border' industries in general.

Transkeian development and the resulting increases in the purchasing power of the Africans would stimulate those concerns producing for this market - e.g., patent medicines, food products, clothing and cheap textile commodities and low-priced furniture. It is obvious, however, that any policy for the development of the area as a whole would be of some benefit to all industries. One industrialist argued that, given a port so conveniently sited and not fully used, with millions of under-developed people living in areas adjacent, the hinterland as a whole, and East London in particular, can hardly fail to develop. This would seem true, if only as a long-term prognostication.

Capital investment in land, buildings, machinery and plant has prevented one or two very large concerns from moving elsewhere after they had realised the disadvantages of East London. Obviously, they would have been well advised to have undertaken a more thorough investigation of the prevailing conditions. A number of establishments seem to put their trust in government policy for the decentralization of industry, as well as a rail tariff policy which would enable the South African Railways to render assistance to under-developed areas.

Several industrialists pointed out that the absence of white private enterprise in the future development plans for the

Transkeian territories, and the lack of entrepreneurial abilities amongst the Africans, would severely hinder the rate of economic progress in the Transkei. Only one industrialist, however, feared a fall-off in sales due to competition from subsidised industries located in the East London area, but it must be noted that this particular industry at present enjoys some degree of monopoly in the East London region. Although the average industrialist appears to be slightly sceptical concerning the development of Transkeian 'border' industries, the majority of opinions understandably favoured any policy which might inject some stimulus into the general economic structure.

Regional inputs and outputs

With the information supplied by answers to the questionnaire, it has been possible to attempt brief analyses of the raw material input and sales output patterns for the 23 firms concerned with the questionnaire. Table 95 gives an analysis of the raw material inputs for the 23 firms on a regional basis. Only the percentage values are given.

Table 95

Origin, by percentage value, of raw materials used in industry in East London - 1960

Border area	Total Cape	Transvaal	Natal	Orange Free State	Imported
6.9	27.7	12.6	18.3	4.1	37.3

The high percentage of imported raw materials is the most striking feature of table 95, which underlined the importance of a situation near a port for a great many industries. Those industries which reveal a particularly high percentage of imported raw materials include motor assembly plants, textile manufacturers, producers of chemical products and certain foodstuff industries, which comprise the four leading industrial sectors of the East London area. Turning back to table 29, however, it can be seen that the percentage of imported materials ranged between 54 per cent and 44 per cent for the period 1945/6-1954/5. Assuming therefore that the figure of 37.3 per cent given in table 95 for the 23 firms in 1960 is representative of the majority of East London industries, the percentage of imported materials has shown a decline in recent years. It has already been emphasised that as the rate of development of South Africa's own natural resources increases, industry will come to rely less and less on imported materials, with the result that proximity

to a port will become of minor importance, unless the export trade expands.

The most important regional source of raw materials within South Africa for East London industry was the Cape Province as a whole, which supplied 27.7 per cent of all raw materials consumed by 23 firms in East London. The relatively high percentage consumption of materials originating from the Cape Province results mainly from the use of agricultural products in the food-processing industries. The motor industry also returned a comparatively high figure for materials originating from the Cape and it must be assumed, therefore, that the majority of South African-made components used by the motor industry in East London are obtained from Port Elizabeth or, in the case of batteries, from East London itself. In addition, several of the smaller concerns, particularly the wood products industries, showed a high percentage use of local materials.

The great percentage of raw materials purchased from Natal were of an agricultural nature destined for use in the food industry, while the materials purchased from the Transvaal were both mineral and agricultural. Most of the heavier type of industrial concerns in East London revealed a relatively high percentage consumption of materials from the Transvaal and as the need for metal products, engineering and machinery industries increases in East London, so the proportion of raw materials obtained from the mineral deposits of the Transvaal and Natal can be expected to rise considerably above their present averages of 12.6 and 18.3 per cent respectively. East London is as yet a light industrial area with no basic heavy industries capable of stimulating external industrial growth, but the position is likely to undergo some change as the rate of industrial expansion increases.

A remarkably low percentage of industrial raw materials was purchased from the Border area and the Orange Free State in spite of the fact that these areas comprise East London's non-competitive hinterland. The materials originating from the Orange Free State were entirely agricultural, while those purchased in the Border area itself were destined chiefly for the food industry, but included timber products and packaging equipment in general. The absence of mineral resources in East London's hinterland suggests that, unless raw materials such as cotton and wool fibres can be produced locally to meet the

requirements of the expanding textile industry, any further industrialization of East London is unlikely to result in an increase in the percentage of raw materials obtained from the north-eastern Cape.

Table 96

Sales of region - percentage values only

Border area	Total Cape	Transvaal	Natal	Orange Free State	Exports
13.8	36.7	39.5	12.6	8.4	2.8

Although as many as eleven out of the twenty-three concerns returning completed questionnaires operated exclusively for the Eastern Cape markets, a very high proportion of their output was sold in the Transvaal. The percentages given in table 96 only serve to emphasise the pull of the Southern Transvaal area as a market centre in South Africa, and they underline the importance of distributive costs to any large-scale industry operating from the East London area. The gradual decentralization of industry in South Africa will, if successfully implemented, result in a larger market for manufactured commodities in these areas which are to be developed, but decentralization on the scale required cannot be accomplished in the space of a few years only, and it is certain that the Transvaal area will remain the market centre of the Republic for years to come. Transportation costs are, therefore, likely to remain an important factor in the locational problem for a long time hence.

A severe imbalance between the value of exported commodities and imported materials is revealed by a comparison between the percentage figures given in table 95 and those in table 96. The percentage of products exported is extremely low for the East London industrial sector and belies the supposition that several industrial concerns were located in East London in order to be near a port for export purposes. South Africa will, in the not too distant future, be forced to look more and more to the export of manufactured goods if balance of payments equilibrium is to be maintained and a great deal of future industrial development should be oriented towards the export markets.

Although East London industry enjoys a great advantage in the markets of the Border area and the south-east Orange Free State, the percentage of sales directed to these areas is very small (13.8 and 8.4 per cent respectively). Thus although 50 per cent of the firms which replied directed the bulk of their

output to East London's non-competitive hinterland, the value of the sales directed to the Transvaal by a relatively small number of large concerns was far greater. The sales statistics for the four largest concerns show 7.4 per cent of sales going to the Border area, and 42.8 per cent going to the Transvaal.

Labour efficiency and supply

Of the twenty-three establishments returning completed questionnaires a total of seven, or 30 per cent, indicated that there had been recent changes in the racial composition of their labour forces. These seven establishments included four of the largest concerns in East London's private industrial sector and in each case, the change in the racial composition of the labour force involved a switch from white to non-white machine operatives or semi-skilled workers. Each industry which had effected a change of this nature indicated satisfaction with both the supply and efficiency of non-white labour. The seven industries concerned are from groups 1, 4, 5, 7, 16 and 19 (two establishments from group 1).

The reasons for these switches were considerations of both labour supply and economy. The relative standards of living of whites and non-whites are such that, where job reservation does not prevent him from doing so, a non-white will accept industrial employment even on a skilled level for a wage considerably less than that acceptable to a white worker. Even where wage determinations are in force it is unlikely that a white worker, with his high standard of living, would be prepared to work for the stipulated minimum wage, whereas most non-whites would be happy to accept it. Shortages of skilled labour in South Africa have from time to time compelled the employment of non-whites as machine operators in industries where it has not been possible to secure a sufficient number of whites. During the period of rapid industrial expansion in South Africa there were shortages of qualified men at all levels of employment. This meant in effect that white employees were able to move up a step or two in the employment ladder, leaving vacancies in the lower divisions, and such vacancies had to be filled with non-whites, whether Africans, coloureds or Asians. In most cases where such a step was taken it was found to have been successful and the practice has been maintained.

Of the seven firms indicating a change in the racial composition of their labour force, three have replaced white machine

operatives by coloureds, one has replaced white female factory labour by coloureds and the remaining three have switched from white machine operatives to African operatives. Of the total of twenty-three firms returning questionnaires, only four were still dissatisfied with the efficiency of their white labour force and a similar proportion registered dissatisfaction with the efficiency of their non-white labour force. The incidence of dissatisfaction amongst firms with regard to the supply of labour was slightly higher, with six registering complaints in connection with the supply of white labour and three registering complaints with regard to non-whites. It is noticeable that only two firms were dissatisfied with the efficiency of both their white and non-white labourers but neither of these complained about the supply of labour. There appears to be no correlation between dissatisfaction with efficiency and dissatisfaction with supply. In one case only was efficiency dissatisfaction coupled with a labour shortage and this case concerned the white labour force of an industry from group 16.

On the general question of labour efficiency, most industrialists considered that supervision and training were the important factors. Field research has revealed that in most cases lack of labour efficiency and low productivity result from incompetent supervision and inadequate training facilities, especially where non-white labour is concerned. The number of concerns which employ sound methods of selecting their non-white labourers is surprisingly small, with the result that their labour turnover is abnormally high, but where care is taken in selecting employees for all types of employment the turnover is correspondingly low. The question of supervision is met at all levels of industrial society, from sectional foremen to top management, and experience seems to indicate that fairness and understanding in labour relations can go a long way towards achieving the maximum amount of labour efficiency. Appreciation of effort and various incentive schemes have also been found to increase productivity amongst the industrial labour forces and one industrialist mentioned the degree of competitiveness in the labour market itself as a good indicator of labour efficiency over a short-term period. If full employment prevails, then it is likely that efficiency will not be at a maximum. Good working conditions, amenities and adequate food and housing were other factors which were believed to influence and increase labour efficiency, and

nearly all industrialists would agree that the payment of a 'living' wage is essential if productivity is to be maximized. One industrialist put forward the suggestion that nearness to the place of work was an important factor relating to labour efficiency and this would seem to be a very considerable problem facing industrialists throughout South Africa, as non-white industrial workers are forced by statute to reside in areas which in many cases are far removed from the industrial sites. Workers are required to travel up to 30 miles a day and their hours of leisure are few. The East London area has, at the moment, few difficulties in this regard, but the removal of the African population to the proposed new township at Mdantsane - over 12 miles from the industrial sites on the West Bank - will undoubtedly give rise to transport problems, unless industry itself is able to move to areas closer to the African township.

Industrialists in general were of the opinion that lack of ambition was the chief cause of a declining level of efficiency among the white industrial workers in East London, as is the case in many other industrial areas throughout the world. One industrialist, with several years' experience in the under-developed countries of the world, was particularly severe in his assessment of middle-income white labour in South Africa. He regarded the working classes and artisans as being much the same as this class of labour throughout the world, but considered that a shocking lack of drive was evident among the office workers, salesmen and administrative staff in general. He contends that South Africans in this income bracket display a remarkable unwillingness to accept responsibility and were without vigour in their approach to work. The reason lies, perhaps, in the comparatively uncompetitive state of the South African labour market in these fields. He himself found considerable difficulty in selecting reliable men for sales distribution but, on the other hand, had had little trouble in obtaining an efficient force of non-white semi-skilled labourers.

With regard to white labour, a major complaint was that young apprentices were not forthcoming. The majority opinion held that the inflated salaries offered by commercial concerns to young men leaving school proved to be far more attractive than the prospect of serving a long apprenticeship with an industrial concern. One employer asserted that an apprentice with even Junior Certificate[4] standing was rare and from the psychological

point of view, young men leaving school are not anxious to commit themselves to a further period of learning and a comparatively low income, in spite of the fact that their incomes - once their apprenticeship has been completed - would exceed the salaries paid by a commercial organization. It was found that apprentices were most irregular in their attendances at the local technical college although incentives had been offered to encourage regular attendance. Generally, there appears to be a shortage of skilled industrial labour in East London but this may be due to a lack of opportunity at higher levels which forces the more ambitious workers to move to other centres.

It is apparent, moreover, that East London suffers from a lack of training facilities for non-white workers and their labour force is therefore largely unskilled. Where these have had even limited training, and receive due consideration from those in authority over them, their efficiency and stability are remarkable. One industrialist maintained that the non-whites in Natal and the Transvaal are better suited to industrial work, as they have spent more years in an industrial society and their adjustment to the demands of industry is so much the easier. In addition, Africans living in Johannesburg, for example, are much further removed from a tribal environment than are those of East London. The full commitment of labour to an industrial society requires a complete break with tribal affiliations, and the system of migrant labour and the perpetuation of a dual society is an obstacle in the path of rapid industrial development. Traditional loyalties are strong among the Xhosa-speaking Africans in East London and they have not been subjected to the disruptive influences of other ethnic groups.

Power consumption

It is possible to do something to make up for the lack of recent statistics relating to industrial output by analysing the industrial consumption of electric power. Where most industrial firms are concerned, the intake of electric current is closely related to the level of output, and table 38 has shown, for example, that well over 90 per cent of the total horse power utilised by East London's private industrial sector was generated by electric motors run on purchased electric power. Thus the consumption of electric power may be used as a guide to the level of industrial output.

In terms of section 1, scale 2, of the Electricity Tariff Regu-

lations pertaining to the Electricity Undertaking of the East London municipality (P.N.58/1961 - 20th January, 1961), some sixty industrial establishments in the municipal area qualify as 'Large Power Users', and it is to these sixty concerns that the following analysis is confined. An establishment whose 'registered or notified maximum demand is 25 kilovolt-amperes or over', is regarded as being a 'large power user'. Table 97 gives the actual and percentage increases in the demand for or consumption of KVA for the sixty industrial establishments during the period December 1957 to December 1962. The month of December has been selected for both years to overcome as far as is possible seasonal fluctuations in the level of output.

Table 97

Electricity consumption by 60 large power users 1957 to 1962

KVA consumed Dec. 1957	KVA consumed Dec. 1962	Actual increase 1957-1962	Per cent increase 1957-1962
8,263	10,097	1,834	22.2

Source: Electricity Department of the East London Municipality.

It should be mentioned, however, that eight of the sixty establishments registered as large power users in December 1962 were not registered as such in 1957, and are either new firms or only qualified as large power users during the five-year period. The total maximum demand for all eight establishments in 1962 was only 315 KVA, and if this figure is subtracted from the KVA returns for 1962, the actual increase in power consumption is reduced to 1,519 KVA and the percentage increase falls to 18 per cent. The average consumption for each establishment in 1962 was 168 KVA and during the five-year period only nine (15 per cent of the total) showed a decrease, while a further eight (13 per cent) revealed a peak demand in years prior to 1962. Substantial increases in KVA consumption were recorded by establishments in the food, textile, chemical products and transport industries in particular and it is once more significant that these four industries are among East London's major industrial sectors.

Gross output for the East London area - excluding the transport industry - was valued at R33,718,000 in 1956/7 and increased to R35,376,000 in 1959/60, showing an increase of 5 per cent during the three years. If, however, the consumption of electric power by the large power users is to be taken as an accurate guide as to the level of output, then by the end of 1962 the value

of East London industry's gross output would have increased to R39,787,000, showing an increase of 18 per cent over the years 1957-1962. An estimated increase of 18 per cent in the value of gross output during these years might, however, be slightly in excess of the real increase, in that the smaller power users may well have shown an overall decrease in electricity consumption and, therefore, in output.[5]

Construction

The construction industry is one of the few major-industry groups in which the level of activity is in no way related to the amount of electricity consumed. It has, however, been possible to assess the level of activity in the construction industry for 1962 and the first half of 1963 from the values of building plans approved by the municipality from 1957 to June 1963, as recorded by the City and Water Engineer's department. These figures are given in table 98.

Table 98

Value of building plans approved: 1957 to 1963

Year	Value R
1957	4,184,878
1958	4,002,784
1959	4,220,550
1960	2,452,990
1961	2,749,904
1962	2,901,687
1963 (to June only)	2,194,540

(Note: The incomplete figures for 1963 suggest that the annual total would be about R4,400,000.)

The above figures indicate that the construction industry suffered a serious decline in activity during the years 1960-1962. In 1960 the value of plans approved was only 58.6 per cent of the corresponding value for 1957, but the indications are that the 1963 level of construction activity will be as high as, if not higher than, the 1957 level. The value of plans approved from January to June 1963 was R2,194,540 - somewhat higher than half of the value for the whole of 1957. There has been considerable activity on several sites in the East London city centre in recent months, the new textile mill at Arnoldton was completed in September 1963, a large grain elevator has been built at East London harbour and there is the promise of new provincial and government buildings as well as the likelihood of an increased rate of industrial development. All these developments

have considerably raised the output of the construction industry.

REFERENCES

1. Dr. Lumsden's research work in the East London area provided the major contribution towards the publication of the volume Economic Development in a Plural Society, O.U.P. (1960), ed. D. Hobart Houghton.

2. A detailed report on the availability and cost of these services is provided in Appendix 'D'.

3. During the 10-year period, 1951 to 1961, the total funds employed at call or short notice in South Africa increased from R124,000,000 to R300,000,000 - vide table 1 of an article entitled 'South Africa's growing money market', by W. King, published in Optima, September 1962.

4. The Junior Certificate is a pre-matriculation examination attempted by the majority of school children in South Africa after some eight years of formal schooling.

5. Industrial small power users fall under the general tariff rates and separate statistics for these concerns are not available.

Chapter 8

CONCLUSIONS

Changing attitudes towards industry

The fifteen-year period after the Second World War, 1945-60, may be regarded as a period of transition in the history of East London's industrial development. Although there was considerable industrial expansion, as the figures presented in earlier chapters indicate, the rate of growth was restricted by two sets of forces - the one local in character, the other national.

Inhibiting forces which were of a local character stem from the fact that East London's initial development was based upon the import and export trade of the large commercial houses, which had built around the port large wholesale distributive businesses. Its origins were thus commercial rather than industrial; and the emphasis on the manufacture of consumer's goods from South African raw materials, which was the major change in the structure of the South African economy in the period between the two world wars, reduced the importance of the role which the importing wholesaler was able to play in the national economy. Unlike Port Elizabeth, where the growth of the footwear and motor assembly industries provided a bridge between the commercial past and the industrial future, East London tended to be strongly traditional.

During these years, East London was apparently content to remain a distributing centre for commercial establishments and a Mecca for summer tourists and the growth of an industrial sector was actively opposed by many residents and local authorities alike. Thus it was partly due to the locally unfavourable economic climate that East London failed to take advantage of the rapid increase in industrial activity experienced by other centres in South Africa during the years 1934-1940.

Even during the immediate post-war years the rate of industrial growth in East London was curtailed by the refusal of local authorities to pursue a vigorous policy designed to attract industrialists. Those few large concerns, notably in the textile and automotive industry sectors, which came to East London between the years 1946 and 1954, did so often in spite of the relative lack of industrial facilities and the non-progressive outlook of East

Londoners in general. Gradually, however, it has come to be generally accepted that East London's future prosperity will depend upon the extent to which the industrial sector of its economy can be developed. The 1950's saw considerable expansion of social overheads. The Laing Dam was completed in 1951 to assure the city of an adequate water supply for some years to come; the generating capacity of the East London power station was increased in 1953/4; and new industrial townships with adequate rail facilities were opened up. In addition, detailed research projects, covering the Economic and social aspects of the East London area, were undertaken by members of the Rhodes University Institute of Social and Economic Research, at the invitation of the Buffalo Catchment Association. In recent years the Institute has also received financial assistance from the East London City Council, which particularly since the beginning of 1962 has taken steps to create an economic climate favourable to industrialists and has even sent representatives overseas in an attempt to attract manufacturers. At present industrial facilities are being developed at Wilsonia, where factories will be able to draw on the proposed new African township at Mdantsane for labour.

It would appear, then, that the 'preconditions' which facilitate the 'take-off' into industrial growth have been established in the East London area. But the problem of developing a leading industrial sector capable of sustaining industrial growth has yet to be fully solved.

There are many factors which are unfavourable to the location of large-scale industry in East London. East London's hinterland, though large in area, includes a high proportion of native reserve territories which at present lack sufficient purchasing power to create a regional market of any great significance. Nor are the economies of these territories fully market-oriented being based, as they are, on a subsistence-type peasant agriculture. If incomes can be raised and a change-over to a market economy satisfactorily achieved, the African demand for consumer goods - particularly foodstuffs - is likely to increase considerably.

Moreover, the factor endowments of East London's immediate hinterland are not such as to attract large-scale industry spontaneously. The relative size of the food-processing industry in East London indicates that the area is largely dependent upon

agricultural raw materials,[1] but even so there has been as yet no industrial development based on the most important agricultural product of the hinterland, namely, wool. The lack of mineral raw materials, except for coal and titanium, precludes the development of heavy industry which has made such rapid strides in the Southern Transvaal.

East London will therefore have to attract light industries, which have less rigid locational requirements. Even in the case of this type of industry East London has serious difficulties to overcome. These arise from the over-all pattern of industrial location in the Republic and, more specifically, from the enormous pull of the market which the Southern Transvaal at present exerts. The concentration of wealth and population in the Witwatersrand, which was initially due to the gold mining industry, has been reinforced by industrial developments based upon the mineral and agricultural resources of that part of the country and on the market pull of that concentration. Thus new industries are attracted there and the market pull is strengthened and the concentration of industry tends to become even more marked. It is clear from what has been said in earlier chapters that many industrialists at present in East London would prefer to be in the Southern Transvaal, and would move there were it not for the heavy capital costs involved. It was also shown that a considerable part of the industrial output of East London firms is sold in the Transvaal, and that transport costs place the local firm at a disadvantage relative to their Transvaal competitors.

The structure of the South African economy suffers from severe regional imbalance, stemming from an unequal distribution of the productive factors in general, but more especially of mineral resources. This regional imbalance has served to perpetuate the dual nature of South Africa's economic society, with a highly developed industrial structure such as exists on the Witwatersrand, on the one hand, and a backward rural economy, such as exists in the Transkei, on the other.

Decentralization of industry

The economic histories of most countries that have attained a high level of industrial development reveal that at some stage during the process of industrial development the economic policy makers of the individual countries have been confronted with the problems of 'depressed areas' and industrial decentral-

ization. Dennison, for example, devotes considerable space to the problems of the depressed areas in the United Kingdom during the 1930's;[2] since the last war a pattern of industrial decentralization has emerged in the U.S.A.; and, as a final example, there is the ten-year Vanoni Plan[3] in Italy, which is at present being implemented in an attempt to achieve regional balance between the industrial northern provinces and the poverty-stricken south. One of the major objects of industrial decentralization is to effect a geographic redistribution of income by establishing a better balance in regional development. The imbalance may have been due to historical accident or to a difference in the factor endowments of the various regions. Any effective policy of industrial decentralization will have to aim at removing, sofar as this is possible, the forces which inhibit the development of the backward areas.

Any programme of decentralization should be embarked upon only after careful consideration has been accorded to the anticipated socio-economic structure of the country as a whole, and should not be regarded as a policy of expedience to satisfy current short-term demands. Industrial decentralization can be looked upon as a deviational policy which, through its removal of specific development impediments by means of official subsidy or control, can alter the natural pattern of industrial location. It would be foolhardy, however, to suppose that an official policy of decentralization can completely ignore the natural forces controlling the locational pattern, and any policy based on such a premise would certainly result in severe economic dislocation or even destruction. At best, decentralization policy can merely attempt to create factors favourable to industrial orientation in areas where such factors were previously non-existent. The whole problem of industrial location, embracing as it does such facets as external economies and factor orientation, must be given careful attention before any policy of decentralization is implemented. The economic desirability of each new programme for regional development involving the relocation of industry should, however, be weighed in terms of both social and economic consequences.

Whereas the private entrepreneur makes his locational decisions in terms of the maximization of private profit (assuming his behaviour to be rational), the official policy of any country as regards industrial decentralization should be geared towards

the maximization of social gain or profit. For this reason the relocation of an industry in an undeveloped or under-developed area, or in a temporarily depressed area, might well be considered in terms of net social gain though it may have been rejected by the individual industrialist. The idea of the social cost of industrial relocation is not often recognised in the private profit motive. If, however, a policy of decentralization geared towards the maximization of social profit at the expense of private profit is to be implemented in a society based on the principle of free enterprise, subsidies will have to be offered to the private industrialist to enable him to effect the relocation of his industry or the location of an entirely new industry in the depressed area, while maintaining maximum profits. The cost of subsidising such industry should be weighed against the benefits accruing from its new location in terms of social gain.

The following quotation from the Hendry Commission Report[4] of 1940 pinpoints the problems surrounding the decentralization of industry in South Africa: 'The best or correct location for any industry is that which will yield to the industrialist the greatest difference between the manufacturing cost and the selling price. Correct location will give rise to the greatest progress in the development of industry generally, and the incorrect location, brought through artificial means, will tend to retard the progress of industrial development. At the same time, industrial decentralization - based on sound economic reasons - promotes undoubted economic stability and eliminates social disadvantages.'

The government has embarked upon a policy of decentralization of industry for a variety of reasons, economic, social, political and strategic; and priority has been given to the establishment of industries on the periphery of the Bantu Area. This policy of 'border area development' has given rise to considerable controversy, but this is not the appropriate place to consider this conflict of views about what is best in the national interests. From the more local viewpoint of benefit to East London there can be little doubt that the government's policy of encouraging decentralization and of border area development is wholly advantageous and may help East London and its hinterland to accelerate its rate of economic growth and to provide employment for the rapidly increasing number of Africans who can no longer be supported in subsistence agriculture.

The essence of the problem which confronts South Africa is how to achieve industrial decentralization while adhering to the principles governing industrial location, and in this regard the concept of 'border area' development can be criticised on various grounds. A large number of these 'border areas', and, in particular, the Ciskei of which East London is an integral part, are not ideally suited to the location of large-scale industry, and the advantages of industrial location in the Southern Transvaal are such that the comparative advantages in cost which the Southern Transvaal area holds over East London cannot be attributed entirely to historical accident. Harold Fridjohn has criticised the establishment of 'border' industries on the grounds that the implementation of such economic policy presupposes the abandonment of the principle of the market mechanism which is fundamental to the spirit of free enterprise.[5] On the other hand, it should be emphasised that the principle of the market mechanism makes no allowance for social gains and is based solely on the concept of private profit maximization. If it succeeds in achieving a redistribution income in South Africa, the subsidised decentralization of industry will result in handsome social profits for the country as a whole and, in order to realise these social benefits, the principle of the market mechanism will have to be abandoned pro tempore.

One of the chief social arguments in favour of border industries is that they could prevent the further disruption of the African family unit by establishing industry in areas where African workers could enjoy the normal and stabilizing privileges of family life, and by obviating the need for the additional influx of African males into the already over-crowded and unsettled urban areas of the existing industrial centres. The migrant labour system results in labour instability and involves the waste of an estimated 660,000 man-years per annum.[6] Even at the existing level of industrial concentration, the establishment of complete family units for all African industrial workers in urban centres such as Johannesburg would present almost insuperable socio-economic problems, and any increase in the level of concentration would increase these difficulties still further. It is well to remember, however, that the development of 'border' industries is planned in the white areas of South Africa on the perimeters of the native reserves. Thus the African employees may be denied permanent residential rights in the

new industrial centres, and may still have to commute from the interiors of the reserves, thereby perpetuating in some measure the system of migrant labour.

'Border area' development has to be attempted in the face of a firmly established pattern of industrial concentration in South Africa, which has evolved through the technological demands of modern industry. To entice competitive industries away from the natural advantages available to them in the established industrial centres will require considerable artificial stimuli, and the accent should therefore be on the establishment of complementary industries in the depressed areas - provided that such industries are orientated towards the natural advantages of the areas in question. It is significant that the government's permanent committee for the location of industry has devoted its attention to the development of industrial sites in those areas in which the reserves impinge on existing urban centres - i.e. Durban/Pietermaritzburg, Pretoria and East London, thereby showing a preference for areas in which an industrial infra-structure already exists. The absence of such infra-structures within the actual reserves must be considered as an argument in favour of the 'border area' development concept, as the cost of establishing industrial complexes within the reserves themselves would be very high. Although the East London area does not compare favourably with the Witwatersrand as a site for industrial expansion, it does offer marked industrial advantages when compared with Umtata or Port St. Johns. Thus, while it is not certain that the 'border area' development plan will provide the necessary stimulus for economic expansion within the reserves, it is obvious that industrial decentralization will more easily be effected in areas like East London than in Umtata, Butterworth or Port St. Johns.

A full list of the measures approved by the government for the promotion of industry in the 'border areas' is contained in Appendix 'E'. Financial subsidies have been guaranteed and a sum of R45,000,000[7] has been set aside for the development of the textile industry alone, this money to be channelled through such institutions as the Industrial Development Corporation. At present the Schumann Commission is investigating the tariff structure of the South African Railways in an attempt to provide some form of rail subsidy to those industrialists who locate themselves away from the market centres. It is obvious that the

government is prepared to go to great lengths in order to achieve the industrialization of the 'border areas', and it is largely as a result of prevailing policies that East London can look to the future of its industrial economy with any confidence.

But in spite of the considerable subsidies offered to industrialists in the 'border areas', the number of industries which will be located in the East London area may be restricted by the factor resources of the area. The limitations imposed on the industrial development of this area by the scarcity of productive factors is evident when one compares the rate of development in East London in recent years with developments that have taken place in other 'border area' locations, such as Hammarsdale in Natal and Rosslyn, just north of Pretoria, where more intensive development patterns can be attributed directly to the availability of ready markets and industrial materials. It should be emphasised that the East London region is perhaps the most crucial of all existing 'border areas' in that it is nearest of all to the Transkei which will be the most important, and the first, of the independent African states.

East London's industrial future

In terms of W.G. Hoffmann's[8] analysis of industrial growth patterns, East London can be said to have passed through stage one of its industrial development. Hoffmann distinguishes between consumer-goods industries (food, beverages, textiles and furniture) and capital-goods industries (metal products, machinery, vehicles and chemical products), and he defines stage one of the development pattern as being characterised by the complete domination of the consumer-goods industries. In 1946/7 the net output of the consumer-goods industries in the East London private industrial sector stood at approximately R3,200,000 while the value of net output in the capital-goods sector was approximately R1,000,000 only. Stage two of Hoffmann's development pattern is characterised by the increasing importance of the capital goods industries, although consumer-goods industries are still dominant. During the years 1946/7 to 1959/60, major-groups 18 and 19 (electrical machinery and transport) emerged as important sectors of East London's industrial economy, and the metal products and machinery industries (groups 16 and 17) increased their output. Two motor vehicle assembly plants and one battery factory were established during these years and their importance as large-scale enter-

prises in the East London area was soon apparent. Thus, although the food, textile and chemical products industries continued to assert the predominant position of the consumer-goods industries, the capital-goods industries had emerged as important growth sectors by 1959/60. As stage two of East London's development pattern progresses, it is likely that the food and beverage industries will gradually relinquish their dominant position in the private industrial sector, while the relative importance of the capital-goods industries will increase until stage three is reached with a balance between the two major industrial divisions.

Owing to the presence of regional specialization within any national economy it is probable, however, that one particular type of industry may remain dominant throughout all phases of industrial development, irrespective of whether it be a consumer-goods or capital-goods industry. The factor resources of the East London area favour the development of the textile industry and it is likely, therefore, that this industry will assume increasing importance during the second and even the third stages of industrial growth.

East London seems destined to become one of South Africa's leading textile centres, but it is not certain whether the textile industry has a linkage rating sufficient to create a whole industrial complex in the area. On the other hand, the textile industry is relatively labour-intensive, and as such, is likely to provide much-needed employment outlets for a great many Africans.

The type of industry best suited to the conditions prevalent in the East London area are those which are labour-oriented and for which the transport factor is of minimum importance. The textile industry is the industry most often quoted as being representative of a labour-oriented industry, and present trends indeed indicate that the East London area will be one of the major centres of the textile industry in South Africa. Although it is true that in absolute terms the textile industry the world over is becoming increasingly capital-intensive - and table 82 has indicated this to be true of the textile industry in East London - it is, nevertheless, equally true that the textile industry has remained the most labour-intensive of all large-scale industries on a comparative basis. Furthermore, it is significant to note that the textile industry was among the leading industrial sectors in East London before the 'border area' development

programme gained impetus. But even if large-scale developments take place within the textile industry in East London, it is unlikely that this industry alone will stimulate sufficient economic activity in general to provide adequate employment outlets for the rapidly expanding non-white population of the adjacent native territories, particularly if it is realised that 300,000 non-agricultural jobs are needed to give employment to those Africans who, in terms of the Tomlinson Commission Report,[9] would have to be displaced from the land in the Transkeian territories alone. The development of a large textile industry in East London could be expected to generate expansion in the clothing and chemical products industries, and in the field of light engineering, but the textile industry does not have a sufficiently high backward or forward linkage rating to generate the scale of industrial expansion required in the East London area. Forward linkages are those which stimulate investment in later stages of production while backward linkages influence investment in earlier productive stages. According to Albert Hirschman's[10] analysis of the interdependence of the various economic sectors in Italy, Japan and the U.S.A., the textile industry ranks only eighth in terms of combined linkage scores, with the iron and steel, non-ferrous metals, paper and allied products, petroleum products, coal products and chemical products industries providing more extensive linkage effects. It is possible, however, that the immediate hinterland of East London will develop into a major cotton-growing centre and that large-scale economies of localization will in the future obtain for the textile industry in East London. It should also be remembered that the East London hinterland is one of South Africa's largest wool-producing areas and the development of the wool industry could result in further expansion in East London's textile sector.

Of the remaining growth sectors in the East London area, the food industry can be expected to increase the value of its output without generating large-scale growth among other industrial sectors; the construction industry is itself dependent upon the development of other industrial sectors.

It must be accepted that major developments in the transport industry may in future be centred on Port Elizabeth or the larger market centres, but the rapid expansion of the motor industry there may have favourable consequences for East London, particularly if the coastal road connecting the two centres is com-

pleted and links both cities, and it may well be that the two cities with the intervening territory may eventually form a single industrial complex.

The chemical products industry might be developed to advantage in East London, and it is certain that the large-scale production of industrial chemicals in East London would give rise to expansion in other industrial sectors. Recent research into the existing structure of the chemical products industry in East London has indicated that almost all firms within this industry produce pharmaceutical products and paints etc., but the growth of the textile industry will result in an increased market for industrial chemicals in East London. As a high percentage of raw chemical materials is imported, location near a port would thus be of advantage, and with adequate training facilities East London could supply the required labour force for this industry.

The chemical products industry, which must be classified as a consumer-goods industry in East London at present, might well develop into a capital-goods industry, as a general expansion in the industrial sector at large, and in the textile industry in particular, is certain to result in an increase in the demand for industrial chemicals.

East London has certain advantages for an industrial establishment. It has the port which gives ready access for imported materials and for export. It has a reasonably good railway connection with the interior which gives it access to the markets of the Transvaal and Orange Free State, although the rating policy of the South African Railways has tended to favour location at the market rather than at the source of the raw materials. However, the whole matter of railways tariffs is at present under investigation and some relief may be expected. Branch lines to Umtata and in the Ciskei give easy access to the immediate hinterland. The coastal road between East London and Port Elizabeth was referred to earlier. These transport facilities combined with East London's central position make it a suitable site for an industry serving a nation-wide market.

East London's greatest single industrial advantage is the untapped labour resources of its hinterland. There is at present an apparent lack of resourceful and energetic white employees at all levels in East London, as limited opportunities have in the past forced such employees to seek better opportunities in other centres. However, this is one of the shortages which would cure

itself rapidly with an expansion in employment opportunities. It is, in the long run, to the African population of the Ciskei and Transkei that industry must look for its future workers.

It could be argued, in terms of the Feldman and Moore[11] concept of labour commitment, that the labour resources of the East London area do not at present constitute an industrial advantage because the workers are for the most part lacking in industrial skills and commitment to an industrial way of life. The cost of training these vast numbers of non-whites in industrial capacities would involve heavy expenditure for the private industrialist. It cannot be denied, however, that a potential industrial labour force exists in the East London area, and if one accepts the need to establish industries in the depressed areas, the cost of providing the necessary training facilities should be regarded as a social cost to be borne by the government as a means towards an end - the end in this case being the maximization of social profit through a geographical redistribution of income. The government has, in fact, indicated its intention of raising the low productivity of African labour by means of Trade Schools in the African areas, but a more vigorous approach to the problem of industrial training should be regarded as a matter of prime importance.

The major disability from which East London has suffered in the past has been the absence of a large local market for its products. If African efficiency can be increased and African peasants can be drawn out of their low-productivity subsistence economy into industrial employment, the market of the hinterland will grow as incomes rise. Moreover, if more industries can be attracted, these will reinforce one another and give rise to increasing internal and external economies of scale. If a large industrial complex can be established many of East London's present disabilities will disappear.

In all schemes for the industrialization of backward areas one must distinguish between existing conditions and future conditions. Many of the factors which at present inhibit the establishment of industry in the East London area will disappear once the development projects are realized. It is possible that the entire area covered by the East London-Queenstown railway line may develop into a large industrial complex, employing as many as 500,000 industrial workers. If such a possibility materializes, many of the locational disabilities, which have for so long pre-

vented the large-scale industrialization of East London, will no longer obtain, and the area will be in a position to offer would-be industrialists economies of agglomeration, an efficient and committed labour force and a substantial local market. Then, too, the need for exports is becoming of vital importance to South Africa's economy as a whole, and the export drive might well result in a locational shift which would assist in levelling out the differences which have given the Southern Transvaal area so marked an advantage over areas such as East London. Clearly, however, the granting of subsidies alone is not likely to induce single firms to locate themselves in an area in which complementary economies are lacking. What is required in East London is a major industrial undertaking, such as has been established at Iscor or Sasolberg, which would initiate the growth of a diversified industrial complex.

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APPENDIX 'A'

Statistical comparability

The compilation of the statistical framework for the private industrial sector of the East London magisterial district since 1945/6, has presented some difficulties. The South African Bureau of Census and Statistics, to which body all industrial establishments are required by law to render annual returns, is the main source of information. The difficulties have arisen partly because East London is not classified as a 'major industrial area', and in consequence many industrial figures for East London are published only in the category of the 'rest of the Republic'. Other difficulties have arisen as a result of changes in the method of classification adopted by the Bureau.

Statistical material for East London industry

With the kind assistance of the Bureau, it has been possible to compile a complete set of statistics for the private industrial sector of the East London magisterial district for the years 1945/6 to 1953/4. For the year 1954/5, however, it has not been possible to obtain a breakdown of employment figures by sex. No industrial statistics by magisterial districts are available for the year 1955/6. Private industrial statistics for the year 1956/7 were published by magisterial districts in the Bureau's Special Report no.240, but figures relating to the value of land and buildings, and to the value of machinery, plant and tools were omitted. Since 1956/7, the only year for which industrial statistics relating to the East London area are available is 1959/60.

Modification of group classification of industries, 1950/1

The first major change in classification of industrial statistics occurred in the census year 1950/1, when the South African Bureau of Census and Statistics decided to modify the existing system of industrial group classifications and bring the South African statistical service into line with the system advocated by the United Nations Organization, allowing thereby for greater international comparability. The total number of major industrial groups was increased from 17 to 23, and in several cases the structure of a specific major-group was considerably altered. Table A gives a list of the major industrial group classifications

adopted by the Bureau in 1950/1, while table B gives a list of the groups classifications in force prior to the 1950/1 modifications. An attempt has been made in table B to give an approximation of the manner in which the old groups have been subdivided and retabulated in terms of the new system of classification.

The 1950/1 modification in no way affects the comparability of the principal industrial statistics for the whole of the East London private industrial sector. It does, however, detract from the comparability of these statistics when analysed by groups.

Table A

Key to major-industry group classifications since 1950/1

Group	Type of industry
1	Foodstuffs
2	Beverages
3	Tobacco
4	Textiles
5	Footwear, other wearing apparel and made-up textiles
6	Wood and cork, except furniture
7	Furniture and fixtures
8	Paper and paper products
9	Printing, bookbinding and allied industries
10	Leather and leather products, excluding footwear
11	Rubber products
12	Chemicals and chemical products
13	Products of petroleum and coal
14	Non-metallic mineral products, except products of petroleum and coal
15	Basic metal industries
16	Metal products
17	Machinery, except electrical machinery
18	Electrical machinery, apparatus, appliances and supplies
19	Transport equipment
20	Miscellaneous industries
21	Construction
22	Electricity, gas and steam
23	Personal services

Table B

Major-industry group classifications prior to 1950/1

1. Treatment of raw materials, the products of agricultural and pastoral pursuits.
   (Now predominantly group 1, with items such as fibre working and cotton ginning going into group 4.)
2. Processes of stone, clay, earthenware and glass.
   (Now group 14.)
3. Working in wood.
   (Now group 6, but shopfitting goes to group 7.)
4. Metal, engineering, machinery and cutlery works.
   (Now mainly 15, 16 and 17. Electrical appliances etc. go to group 18, vehicle workshops to group 19 and telephones to group 21.)
5. Preparation, treatment and preserving of foods, drinks, condiments and tobacco.
   (Now groups 1, 2 and 3 for food, beverages and tobacco respectively, but cold storage plants go to group 20.)
6. Production of clothing (except boots and shoes), textile fabrics and similar articles.
   (Now groups 4 and 5.)
7. Books, paper, printing and bookbinding.
   (Now groups 8 and 9, with rubber stamps going to group 20.)
8. Vehicles, mechanically propelled and otherwise, fittings for, and parts of, vehicles.
   (Now group 19.)
9. Ships and boats.
   (Now group 19.)
10. Furniture, bedding and upholstering.
    (Now groups 7 and 6.)
11. Drugs, chemicals (including fertilisers and by-products), paints, varnishes and allied products.
    (Now group 12; but toilet requisites go to group 5, margarine to group 1 and grease and oil lubricating to group 13.)
12. Surgical, dental and other scientific instruments and apparatus.
    (Now group 20.)

13. Jewellery, time pieces and plated ware.
    (Now group 20.)
14. Heat, light and power.
    (Now groups 13 and 22.)
15. Leather and leatherware.
    (Now groups 5 and 10, with boot and shoe repairing going to group 23.)
16. Building and contracting.
    (Now group 21, with signwriting, posters etc. going to group 20.)
17. Miscellaneous industries.
    (Now mainly group 20. But rubber industries go to group 11, whaling to group 12, and electric bulbs to group 18.)

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N.B. As there has been no breakdown by items on a magisterial basis in the industrial census statistics, it is practically impossible to establish an exact relationship between the two systems of grouping.

Structural modifications to the Industrial Census - 1955/6

Certain modifications to the structure of the Industrial Census, which were introduced by the Bureau in 1955/6, have had an even greater influence on the degree of statistical comparability than did the reclassification of major industrial groups in 1950/1. The 1955/6 changes resulted from the decision of the Bureau to exclude from the general Industrial Census, with effect from the 1955/6 census, 'certain activities of an industrial nature'. These are broadly:

a) manufacture mainly for consumption on the premises, for example, ice cream made in cafes;
b) grain mills (hammermills and saw-mills operated by farmers for and at their own convenience or for neighbours and by retail stores for customers (custom milling));
c) repair and service work carried out by:
   i) commercial establishments, for example bicycle shops, jewellers, electrical appliance dealers, office machine and equipment dealers, etc.;
   ii) mines in their own workshops;
   iii) bus, tramway and trolleybus undertakings in their own workshops;

iv) cold storages used for storage only and not in connection with manufacture;

v) establishments which fall under the Census of the Motor Industry introduced with effect from 1955/6: these are establishments concerned with the manufacture, repair, etc., of motor vehicles, parts and accessories excepting establishments assembling motor vehicles on an assembly line basis from C.K.D. parts, and tyre and battery manufacturers. (The latter establishments were included in the Census of the Motor Industry with effect from 1956/7.)

The extent to which the establishment of a separate Motor Census has influenced the statistics of private industry in East London can be seen from a brief analysis of those industrial groups most concerned with the motor industry in East London if we compare the years 1954/5 and 1956/7. (The fact that assembly plants and tyre and battery manufacturers were only diverted to the Motor Census with effect from 1956/7 is of little consequence to this study, as no statistics are available for 1955/6 by magisterial districts.) Those major industry groups in the East London private industrial sector most concerned with the motor industry prior to the 1955/6 modifications were, group 19 (transport), group 18 (electrical machinery, including battery manufacturers) and group 11 (rubber goods, including tyre vulcanizing).

Table C

Comparison of industrial statistics relating to groups 19 and 18 for the years 1954/5 and 1956/7, indicating the effects of the establishment of a separate Motor Census on the statistics for East London's private industrial sector

	1954/5	1956/7
Group 19:		
Number of establishments	47	2
Number of employees	1,068	*
Gross output	R3,228,000	*
Group 18:		
Number of establishments	21	9
Number of employees	697	143
Gross output	R1,746,000	R284,000

* Not available for publication.

It should be mentioned that the 1956/7 statistics for group 18 also reflect the removal of a number of electrical appliance dealers from the general census returns of 1954/5, but the employment and gross output figures for the two large-scale

battery manufacturers would account for the extremely high percentage of the total losses incurred by group 18. Clearly, however, the most substantial losses, in terms of establishments, employment and output, resulting from these modifications were suffered by the transport industry - group 19. As the two establishments remaining to group 19 in 1956/7 were both blacksmithing concerns, it seems reasonable to assume that the introduction of a separate Motor Census in 1955/6 resulted in a loss of over 1,000 persons in terms of employment, and well over R3,000,000 in terms of gross output, in group 19 alone, and it should be remembered that these estimated figures have not been adjusted to allow for growth in the transport industry between the years 1954/5 and 1956/7.

Total gross output for the private industrial sector of East London was valued at R33,688,000 in 1954/5, and it may be deduced that the 1955/6 census modifications resulted in a reduction of approximately 13 per cent in gross output in consequence of the exclusion of the Motor Industry. However, the task of assessing accurately the contribution of the Motor Industry towards the total private industrial output of the East London area is made more difficult by the following two factors:
a) Statistical information so far released by the Motor Industry Census section of the Bureau on a magisterial district basis has been confined to statistics relating to garages, service stations and dealers in vehicles and accessories - in other words, such information excludes the manufacturing sectors of the motor industry; and b) although the Automotive Industry has now been divided into two major groups, the Motor Trade and the Manufacturers, a number of establishments now classified under the Motor Trade group, would, prior to 1955/6, have fallen within the orbit of the general industrial census. Quoting from a Statistical News Release of the Bureau under the heading, 'Census of the Automotive Industry', dated 20th August 1962: 'It should be noted, however, that certain kinds of businesses classified under Motor Trade do repairs to a greater or lesser extent and even manufacture to a small extent.' Thus, even if statistics were available on a magisterial district basis it would not be easy to single out those establishments which would previously have fallen within the orbit of the general Industrial Census.

Table D

Types of establishments in the Automotive Industry Census

1. MOTOR TRADE

Garages:

Dealers in vehicles (predominantly new)
Dealers in vehicles (predominantly used)
Service stations
Motor graveyards
Dealers in parts and accessories
* Tyre dealers (including re-treading)
Wholesale distributors of motor vehicles
* Automotive electricians
* Engineering workshops
* Panel beaters and spray painters
* Blacksmiths and welders
* Other motor trade

2. MANUFACTURERS

* Parts and accessories
+ Tyres and tubes
+ Batteries (and repairs)
* Radiators (and repairs)
+ Motor assemblers
* Springs
* Body builders

* Taken from the main industrial census in 1955/6
+ Taken from the main industrial census in 1956/7.

Prior to the modifications of 1955/6, group 18 included statistics relating to repair and service work carried out by electrical appliance dealers, while group 20 included such items as cold storage and ice works, and repairs to watches and clocks, all of which were excluded from the general census after 1955/6. It is unlikely that the food industry (group 1) of East London was much affected by the 1955/6 exclusions and in general it is unlikely that loss in output attributable to the removal of the more commercial-type establishments from the industrial

Census returns amounted to more than 3 or 4 per cent of the total gross output of the East London private industrial sector. If this estimated percentage loss in gross output is added to the loss in output caused by the establishment of a separate motor census, then the 1955/6 modifications can be said to have resulted in a total loss of not more than 17 per cent of gross output in East London. This loss would be sufficient to impair the statistical comparability.

East London's statistics in the future

Although it is not certain when the Bureau will be in a position to publish further industrial statistics on a regional basis, it is unlikely that such information will be published by magisterial districts for each successive year. With effect from 15th March, 1961, a new code list of 'Economic Areas' was compiled by the Bureau for the release of statistical material. In terms of this new code, the East London area falls under economic Zone no. 18, and is coupled with the King William's Town area. Thus for those years in which statistical information is published by economic zones it will be necessary to separate statistics relating to East London from those given for zone no. 18, if statistical comparability for the East London area is to be maintained.

Removal of statistics relating to the transport industry

In order to maintain some comparability throughout this book all statistics relating to major-industry group 19 (transport) have been removed from the main statistics for the East London area. Thus the data given in tables 25-86, with the exception of tables 70-72, exclude group 19. Since, however, the transport industry has played a leading role in East London's industrial growth - particularly since the end of the Second World War - a summary of development within this industry for the period 1945/6-1953/4 has been included in an appendage to chapter five. But the removal of group 19 does not make the figures comparable because the introduction of the separate automotive census also involved other industrial groups. In East London, for example, the automotive census claimed two establishments from group 18 (electrical), five establishments from group 11 (rubber) and one from group 6 (wood and cork). Statistics relating to these eight establishments would, therefore, have been excluded from the general industrial census returns for years after 1955/6, but comparability has been maintained within groups 11, 18 and 6 by estimating the statistics of each

of the eight establishments, and including them in the statistical presentations for East London for the years 1956/7 and 1959/60.

APPENDIX 'B'

List of 42 magisterial districts comprising the Border Area

Adelaide	Maclear
Albert	Middledrift
Aliwal North	Molteno
Barkly East	Mqanduli
Butterworth	Ngqeleni
Cathcart	Nqamakwe
East London	Peddie
Elliot	Port St. Johns
Elliotdale	Queenstown
Engcobo	St. Marks
Fort Beaufort	Sterkstroom
Glen Grey	Stockenstrom
Herschel	Stutterheim
Idutywa	Tarka
Indwe	Tsolo
Keiskammahoek	Tsomo
Kentani	Umtata
King William's Town	Victoria East
Komgha	Willowvale
Lady Grey	Wodehouse
Libode	Xalanga

Native Reserve districts

Butterworth*	Mqanduli*
Elliotdale*	Ngqeleni*
Engcobo*	Nqamakwe*
Glen Grey	Port St. Johns*
Herschel	St. Marks*
Idutywa*	Tsolo*
Keiskammahoek	Tsomo*
Kentani*	Umtata*
Libode*	Willowvale*
Middledrift	Xalanga*

* Those areas which form part of the Transkei Reserve

APPENDIX 'C'

Urban populations of the Border Area (all races) 1960

Centres with populations of 5,000 and over

Town	Population	Town	Population
East London	113,746	Fort Beaufort	9,750
Queenstown	33,182	Stutterheim	9,025
King William's Town	14,678	Burghersdorp	7,165
Umtata	12,221	Zwelitsha	6,232
Aliwal North	10,763	Adelaide	5,573

Centres with populations of 1,000 and over but under 5,000

Town	Population	Town	Population
Molteno	4,380	Ugie	2,423
Dordrecht	4,022	Butterworth	2,367
Cathcart	3,962	Komgha	2,273
Sterkstroom	3,755	Cala	2,257
Barkly East	3,650	Keiskammahoek	2,232
Alice	3,551	Lady Grey	2,117
Maclear	3,550	Idutywa	1,308
Elliot	3,517	Blinkwater	1,259
Tarkastad	3,365	Port St. Johns	1,172
Indwe	3,089	Engcobo	1,159
Upper Kubusi	2,729	Seymour	1,072

APPENDIX 'D'

Electricity tariffs and supply: land availability and cost: and municipal valuations and rates

Electricity supplies and prevailing costs

Current for East London's electricity supply is generated at the Escom power station on the West Bank of the Buffalo River.

Prior to the 1st January, 1947, the East London municipality was itself responsible for both the generating and distributing of electrical energy in East London. From the above date, however, the control of the West Bank power station passed into the hands of the Electricity Supply Commission, who have since considerably increased the generating capacity of the plant. At the time of the take-over, the installed capacity of the now West Bank no.1 Station was 24,500 KW. In November 1951, however, the generating capacity of this station was increased by an additional 7,500 KW, bringing the total installed capacity at West Bank no.1 up to 32,000 KW. The West Bank no.2 Station was commissioned in July 1956, with an installed capacity of 30,000 KW. Thus the present installed capacity of the Escom plant in East London stands at 62,000 KW, and plans have been drawn up for an extension of this capacity by a further 15,000 kilowatts in 1963.

Escom undertakes to supply the East London municipality with bulk electricity each year, but the actual distribution to consumers in the municipal area is still in the hands of the municipality. Besides generating current for East London itself, Escom has extended its power lines to cover a wide area, including Port Alfred, Grahamstown, Alice, Stutterheim and Butterworth, as well as the less distant centres of Komgha, King William's Town, Berlin, Gonubie, etc.

Electricity is sold to the East London municipality on the basis of a bulk tariff. There is a monthly service charge of R6-80, plus a KVA charge of R2-05 per KVA of demand established during the month.* In addition to these charges, there is an energy charge for each unit supplied during the month. This unit charge is adjustable on the price of coal, and is revised every three months. In May 1962 the unit charge for bulk supply stood at 0.450c per unit.

The East London municipality has to notify Escom of its anti-

* Charges as for May 1962.

cipated maximum demand for any one year in terms of so many thousands of KVA. The notified demand for 1962 was 35,500 KVA. The Escom supply to the municipality is metered each month and charged accordingly. If the maximum demand for any one month is less than 70 per cent of the notified maximum demand for the time being in force, then Escom is entitled to charge for 70 per cent of the notified maximum.

For large power users other than the East London municipality, the same tariff applies as to the East London municipality plus a surcharge of 2 per cent on the demand and unit charges if the consumer takes supply at high voltage (11,000 volts), or 6 per cent if power is taken at low voltage (380-220 volts). In addition, a monthly extension charge is also raised where necessary.

In 1962 an area surcharge of 5 per cent was levied on the above charges in the case of all Escom consumers in the coastal area. In the reticulated area of Alice, an area surcharge of 33 per cent was payable.

'Cost of coal' refers to the actual purchasing costs plus any amount spent on transportation and handling. Although the price per ton of coal at pit-head was approximately R1-30 only, transport and handling costs resulted in a price of approximately R4-70 per ton of coal at West Bank in 1962. Maximum demand means the highest load in kilovolt amperes supplied to the consumer during any period of thirty consecutive minutes in the month. A 'unit' refers to a kilowatt hour.

East London municipal tariffs

In terms of the Provincial Notice published on 20th January, 1961, (P.N.58/1961), the following are the East London municipal electricity tariffs applicable to industrial consumers: (This tariff will be in force for the period ending 31/12/63.)

Scale 1

Room rate: a) Applicable to lighting and domestic usage for commercial and industrial purposes: a monthly service charge of R0-37½ per room subject to a minimum charge for four rooms, plus .833c per unit for all units consumed. (The unit charge is subject to fluctuations in the price of coal.)

Scale 2

Section (1) - Large power users: low voltage supply. (Registered or notified maximum demand of 25 KVA or over.)

(a) A service charge of R5-00 per month plus

(b) a demand charge at the rate of R1-62½ for each KVA of the maximum demand supplied each month, plus

(c) an energy charge of .583c per unit supplied in the month.

In addition to the above charges there is a Coal Cost Adjustment charge which varies with fluctuations in the price of coal. If the maximum demand taken by the consumer in any month is less than 70 per cent of the highest demand registered in the preceding twelve months the Council is entitled to charge for a minimum of 70 per cent of the highest demand previously registered.

Section (2) - Small power users: low voltage supply. (Registered or notified demand of under 25 KVA.)

A monthly service charge of R0-80 per horse power installed subject to a minimum charge for four horse power, plus .833c per unit for all units consumed.

The above unit charge is subject to fluctuations in the price of coal.

(746 watts equals one horse power.)

Scale 3 of the electricity tariff deals with a Flat Rate and a Limited Demand Rate, which are applicable to all classes of consumers for any purpose.

The Flat Rate charge is 6.26c per unit subject to a minimum charge of R1-50 per month.

In terms of P.N.972/1961, there was a surcharge of 5 per cent on their monthly electricity accounts for all consumers other than those to whom the Council is bound by contract to supply electricity.

Although there are no tariffs in East London for high voltage current, the East London municipality reserves the right to distribute bulk electricity via high-voltage tension cables, thereby saving some expense. Such current is transformed into low-voltage power at the industrial site at the municipality's expense and the industry concerned is charged at the low-voltage tariff. A large-power user may be required, however, to provide accommodation for the transformer substation.

Table E indicates the cost of electricity to industrial consumers (large-power users) in East London and Port Elizabeth as at 4th August, 1960. The basic tariffs were applicable in East London to the end of 1963, but the coal cost adjustments are subject to periodic fluctuation. Although Port Elizabeth had no service charge and the monthly demand charges and unit

Table E

Cost of electricity to industrial consumers in East London and Port Elizabeth as at 4th August, 1960

Town	Monthly service charge	Monthly demand charge per KVA L.V.	Monthly demand charge per KVA H.V.	Energy charge per unit L.V. c.	Energy charge per unit H.V. c.	Coal cost adjustment L.V. c.	Coal cost adjustment H.V. c.	Remarks
East London	R5-00	R1-62½	-	.503	-	.033	-	If M/D is less than 70% of previous M/D then 70% of previous M/D is charged.
Port Elizabeth	nil	R1-55	R1-45 & R0-85	.458	.417	.187	.1698	HV M/D charge of R1-45 per KVA for first 1,000 KVA per month, and R0-85 per KVA thereafter.

L.V. = Low voltage; H.V. = High voltage; M/D = maximum demand.

Source: City Electrical Engineers' department, East London.

costs were lower in Port Elizabeth than in East London, the coal cost adjustment in Port Elizabeth was high. The Port Elizabeth tariff is misleading in that unit charges had been kept at a minimum while the coal cost adjustment had risen. Before the Provincial Administration decreed that basic tariffs must be revised every seven years, it was possible to maintain unit costs at a minimum and alter the variable cost in order to make good the loss in revenue.

Table F gives a comparison of electricity costs in East London and Port Elizabeth for sample industries at the prices prevailing in August 1960. These figures indicate that a more intensive use of electricity resulted in a lower average price per unit for industry in East London, while in Port Elizabeth, although the average price per unit fell with a more intensive use of electricity, the reduction was not as great as in East London. Thus the cost of electricity to large-scale industry was lower in East London than in Port Elizabeth - in spite of the fact that East London had a higher unit cost. The high coal adjustment in Port Elizabeth was disadvantageous to large-scale consumers.

There are four major variables which may be said to influence the price of electricity from a distributive point of view. These are: a) time of day; b) length of use; c) fast or slow peak; and

Table F

Comparison of electricity costs to sample industries - East London and Port Elizabeth, August 1960

	East London		Port Elizabeth	
	Total cost R	A.P.U. c	Total cost R	A.P.U. c
Industry 'A'				
Monthly demand of 150 KVA, with a monthly consumption of 24,880 units	402-09	1.616	393-02	1.580
Industry 'B'				
Monthly demand of 300 KVA, with a monthly consumption of 96,800 units	1,089-11	1.125	1,089-52	1.125
Industry 'C'				
Monthly demand of 1504 KVA, with a monthly consumption of 523,200 units	5,673-66	1.084	5,706-71	1.091

A.P.U. = average price per unit.

d) load factor. It is important to note that industry has the lowest peak of all consumer sectors. That is, industry has a lengthy period of maximum demand which extends virtually throughout the working day. Lighting, on the other hand, has an extremely sharp peak period, with its maximum load lasting only from approximately 6 to 8 p.m., depending on the season. Thus industry does not cause any undue problems with regard to peak period output. All industry in East London operates on the basis of a three-part tariff. This entails a service charge, a demand and an energy charge which is adjustable on the ruling price of coal.

Table G

City of East London: electricity undertaking: statistical information

Items	1949	1961
Number of consumers	10,308	15,438
Income from sales of current	R557,228	R1,873,471
Income from private supplies of motive power	R 93,170	R 557,096
Gross profit	R160,576	R 335,848
Net profit	R 59,990	R 51,830
Units purchased from ESCOM	60,952,690	144,552,550
Units sold	57,052,868	136,559,687
Notified maximum demand	17,300 KVA	33,000 KVA
Units sold to motive power users	10,053,643	41,022,187

Source: City Electrical Engineers' department, East London.

Table G gives a summary of the more important statistics relating to the East London Electricity Undertaking for the years 1949 and 1961. These figures speak largely for themselves. The

number of consumer installations rose from 10, 308 to 15, 438 during the 12-year period and there was a significant four-fold increase in the number of units sold to motive power users. The value of net profit fluctuates annually, depending upon the distributive and maintenance costs for that year, and depending upon the extent of additional capital expenditure necessitated by increases in consumer demand.

Table H

Average cost per ton of coal used at ESCOM's power stations

Power station	1950 R	1952 R	1954 R	1956 R	1958 R	1960 R
West Bank (East London)	3-04	3-40	3-79	4-09	4-39	4-61
Witbank	0-42	0-59	0-70	1-02½	1-05	1-06
Vereeniging	0-54	0-67½	0-77	0-85	0-99	0-87
Brakpan	0-87½	0-96	1-33	1-50	1-72½	1-70
Salt River	3-24	3-52½	4-10	4-22½	4-57	4-83
Colenso	1-32	1-85	2-15	2-71	2-97	3-12

Source: Electricity Supply Commission's Annual Report, 1960.

The availability and cost of industrial land in East London

(The information contained in this report was made available by the Town Clerk of East London in an interview on 9.5.62)

The lack of available resources of land suitable for industrial purposes, and more especially, the lack of adequate facilities in the existing and scheduled industrial areas, have undoubtedly contributed towards the slow pace of East London's industrial development over the past 15 years. Various factors have, in turn, contributed towards this immediate shortage of developed industrial sites. Four such factors are:

(a) The geographical structure of the East London district, which limits the availability of level stretches of land suitable for industrialisation and the extension of rail facilities.

(b) A delay by the government in regard to the siting of the new African township, which made it difficult for the East London Council to commit themselves to the development of any industrial area.

(c) Lack of financial resources.

(d) An understandable hesitation to spend vast sums of the extension of facilities, without first having the assurance that industrialists would be attracted to East London.

The difficulties outlined in a, c, and d are those of a permanent

nature, although the progressive attitude of the present Council might well circumvent factor d. As regards the question of the new African township, this difficulty has been resolved in the recent (8.2.62) decision of the government to locate the proposed township at Mdantsane in the Potsdam area to the west of East London on the main King William's Town road.

The existing industrial areas in East London are those of Gately and Gately West, Arcadia, Chiselhurst, Woodbrook, Braelyn and North End. These areas are reasonably well-developed, but only Gately, Chiselhurst and a portion of Arcadia have adequate railway facilities. Other areas in which industries have been located are Dawn, Cambridge and parts of Woodbrook Township, but with the possible exception of the sites at Dawn, these areas are lacking in facilities.

Areas which have in recent years been mapped out as possible industrial sites include Wilsonia, portion of Buffalo Flats, extensions to Woodbrook, and Fort Glamorgan which would adjoin Gately Township.

The position at the moment is that all the developed industrial areas have been taken up, and that the East London Council has no suitably developed land with rail facilities which it could offer to would-be industrialists. Due to the decision to locate the African township at Mdantsane, the government has advised against the extension of facilities for industries in the West Bank area. Woodbrook will thus either remain a semi-developed area, or parts of it will be reclaimed for residential purposes.

The proposed industrial area at Fort Glamorgan was abandoned in 1958, when the then Minister of Native Affairs, Dr. Verwoerd, stated that he did not favour this scheme in view of the probability that the future African township would be located at Mdantsane. Future industrial areas in East London were to be close to this township, in order to alleviate employment and transport difficulties, which are likely to prove enormous problems for a township the size of the one projected for Mdantsane.

One of the reasons for the apparent period of indecision with regard to the proposed location for the African township was the fact that a Development Subcommittee of the Natural Resources Development Council put in strong recommendations to the government in an attempt to get the new African township located on the West Bank, in the vicinity of Cove Rock. This scheme had much to recommend it. The township would have been located

close to existing industrial areas, and in an area where it would have been possible to expand industrial facilities in order to absorb the excess African workers. Transport difficulties could more easily be overcome on the West Bank, and the problems of water pollution and recreational facilities also pointed in favour of a West Bank location. However, the government finally decided in favour of Mdantsane, thereby forcing the East London Council to look to Wilsonia for future industrial development. It is clear that the hands of the East London authorities were virtually tied until such time as the government made a move, and for this reason Wilsonia is still in a state of underdevelopment.

Subsequent to the decision on Mdantsane, however, the East London Council passed a firm resolution (on 30.4.62) to go ahead as quickly as possible with the development of industrial sites at Wilsonia. Townshipping plans have been drawn up, and negotiations are under way with the South African Railway authorities for the provision of rail facilities at Wilsonia. There are still many difficulties to be overcome, and no one can accurately state when Wilsonia will be able to accommodate industries. One immediate difficulty concerns the extension of rail facilities. The South African Railways has offered to extend a branch line from Arnoldton to Wilsonia. The cost of only the one line from Arnoldton to Wilsonia has been estimated at R200,000, in addition to which the East London Council would have to bear the costs of building further branch lines or spurs to the heart of the industrial area. The cost of the main branch line to Wilsonia would be practically halved if the South African Railways would agree to build the line from Reeston to Wilsonia, a distance of approximately half that between Arnoldton and Wilsonia. The difficulty seems to lie in the fact that Reeston is only a very minor station compared with Arnoldton and would require further development if it were to handle a branch line.

From a long-term point of view, the availability of suitable land imposes limitations on the future of Wilsonia. Wilsonia itself is not very big, and further industrial land will have to be developed as Mdantsane grows in size. Level land is not easily come by in this part of the world. At present it is estimated that there will be 215 acres of industrial land with all facilities, including rail sidings and 200 acres without rail facilities.

Although the government has arrived at a decision with regard

to the location of the African township, the investment by the East London Council of large sums of money in developing an industrial township at Wilsonia still remains a gamble. The gamble might, however, be well worth the taking in view of the government's commitments towards the development of 'border industries'.

In any event, urgent action is required if industrialists are to be attracted to East London. With nothing concrete in the way of land resources to offer, East London is likely to lose out in the industrial 'scramble'. At present any negotiations for sites at Wilsonia would be nebulous and would dampen the enthusiasm of any practical industrialist.

Industrial land prices

Many people tend to regard the price of land as having little bearing on the decision of an industrialist to locate his factory in a certain area. It may well be true that in a great many instances the price of land plays only a minor role in such decisions, but from a realistic point of view it cannot completely be disregarded. Other factors being equal, land price may become the deciding factor and, in any event, all factors concerning the cost of establishing an industry in any one area will have a cumulative influence on the final decision.

Originally land in industrial townships such as Gately was sold for only nominal sums (R100-R200) in order to attract industrialists. Subsequently, however, the Provincial authorities have intervened in order to protect the assets of the East London Council. The Provincial authorities considered that land should be sold at not less than cost, if not at the true market price. Land values were assessed by the valuer appointed by the Provincial Administration and the price of land has since been governed by these valuations. The price of land was fixed at R4,000 per acre at Gately West and Woodbrook for example, although the price paid by a canning factory at Gately West was lowered to R3,000 on application to the Administrator. Although the Administrator will not agree to a change in the fixed price of land, he will apparently give a sympathetic hearing to individual cases where it can be shown that industries are being lost through the high price of land. Thus it would appear that land at Woodbrook, which is not fully developed and is not likely to be given rail facilities, could be obtained at a lower price than that stipulated by the Provincial Administration.

It is important to realise, however, that in addition to the actual cost of land, the price paid by the industrialist for his site should include a share of the cost of the township layout, the roads and drainage system and the cost of providing rail facilities. Services which are charged for each month, such as the supply of water and power, are not included in the actual price of land. The annual rail maintenance costs, as assessed by the South African Railways, are passed on to the individual industrialists by the local authorities.

The main branch line to the township is paid for by the town or city council, and the cost is recovered in the overall price of the land, but the spur lines into the heart of the township are paid for by each industry served by such a line.

The provision of rail facilities is obviously an item of considerable expense in the cost of establishing an industry or industrial township as a whole. When preliminary statistics were drawn up for the proposed township at Fort Glamorgan, the cost of providing rail facilities was estimated at R5,000 per acre, and would have more than doubled the actual price of land. Yet these services are vital to the efficient running of the majority of industries, particularly heavy industries which are lacking in East London.

Municipal rates and valuations

Methods of valuation

a) Land:

The value of land is based on an estimation of the price a willing buyer would be prepared to pay a willing seller if the land to be valued were brought to voluntary sale at the time of the commencement of the valuation. Thus, municipal land values are based on the actual prices obtained, preferably for vacant ground, over the five years preceding the date of commencement of the valuation. The valuer is instructed to examine the sales, of vacant and built-on ground, for the preceding five years. He is required to select two such representative sales per ward, but, in practice, considerably more than just two samples are selected. These samples are then valued in detail and submitted to the valuations court, where their value can be disputed by any member of the public (ratepayer or otherwise). From the valuations court they are submitted for approval to the Director of Valuations in Cape Town. Once these sample

valuations have been approved of in Cape Town, all land is valued in terms of the most similar sample in each specific ward. The valuer is required, however, to make an inspection in loco of each section of land valued in order to select special cases for consideration. Physical features, poor outlook, gravel roads etc., can all influence land values, and reductions from, or additions to, the land values are registered accordingly.

Property valuations in East London were recorded in the valuations rolls of the years 1945, 1952 and 1960. Since 1960, legislation has been in force limiting the validity of any valuation to a period of five years. Thus, every five years new values for both land and buildings have to be assessed, and the rates altered accordingly. The task of evaluating a municipal area of any size is a lengthy one, and no sooner have one set of valuations been recorded than machinery has to be set in motion in preparation for the next. Obviously, the property values may rise or fall during the interim of any one five-year period but, regardless of fluctuating values, all interim valuations are referred back to the original samples.

b) Buildings:

All buildings are valued at the assessed cost of construction as if construction on the date of the commencement of the valuation - less a statutory concession of 25 per cent. Further reductions in the value of any building are made for depreciation and allowances are made for any other detrimental factors. Material and labour costs are assessed at the ruling prices.

Under this system of valuation, it is clear that there can be a rise in the valuation of a building over a period of, say, ten years, in spite of considerable depreciation. A rise in the cost of construction may well be greater than the decline in value due to depreciation.

Rates and values

Under the 1960 valuation of East London property, there is a great difference between the ratio of the value of buildings to the value of sites in the urban areas, and the ratio of building values to site values in the city area.

	Building	Site	
(app.)	4/5	: 1	... in urban areas
"	1	: 4	... in city area

These ratios indicate that site values are generally far higher than building values in city areas while the reverse is true of

the urban areas. The implications are that business concerns in the city have failed to develop their business sites to the full. For example, single storey buildings in prominent positions in Oxford Street would be bound to suffer if the rating ratio were loaded against site values - as is the case at present. Failure to capitalize on past booms by putting up four or five storey buildings, thereby enabling themselves to cushion the effects of rising site values by raising the rental on office accommodation, has resulted in considerable hardship for several leading East London commercial firms. (It should be mentioned, however, that the demand for office space in East London is limited, and it is doubtful whether all sites could profitably be developed in this manner.)

Unfortunately, the valuation system in East London operates so that any improvements to properties tend to push up their values, thus increasing, in effect, the cost of such improvements by reason of the rates levied against the increased values. In other words, the property would appreciate rather than depreciate in value. Obviously, any system of valuation is bound to have contentious side issues. The important thing to remember is, however, that valuation is intended merely as a basis for taxation and not to afford one section of the community undue preference over another. Each system has its faults, and, as yet, there is no single fool-proof method of valuating property.

Rating system

In the Cape Province there exist both a Divisional Council Rate and a Municipal Rate. We are here concerned with the East London Municipal Rate only.

A composite system of rating is applied to property in East London - a portion on site and a portion 'otherwise'. In effect, this means that one rate is levied against the site valuation and another against the total valuation of land and building together. The 1962 ratio of the site rate to the total rate was 10:1. The assessment rates for East London for 1962 were as follows:

Site/erf	4.82c per Rand
Total	0.53c per Rand

Obviously the rating ratio can be used as a political tool in the municipal council elections. By increasing the ratio the Council is favouring the domestic property owner - the voter. A decrease in ratio will be to the benefit of big business, more especially if such concerns have not developed their sites to the

Table I

Valuations as at 1.1.1962

Rateable			Non-rateable	Total		
Site	Buildings	Total	Total	Site	Buildings	Total
R24,929,410	R54,986,855	R79,916,265	R33,615,580	R46,739,730	R66,792,115	R113,531,845

Comparison of 1962 and 1953/4 valuations

	Rateable	Non-rateable	Total
1953/4	R45,161,546	R18,155,154	R63,316,700
1962	79,916,265	33,615,580	113,531,845

full. The rating ratio was increased in 1962, rising from 8:1 to 10:1, thus favouring the domestic property owners while increasing the tax burdens of those concerns with large and valuable sites, though relatively undeveloped, in the city area.

Thus it can be seen that there was little change in the percentage relationship between rateable, non-rateable and total valuations in the municipal area of East London during the eight years between the end of 1953 and the beginning of 1962. In 1953, the rateable valuation was approximately 70 per cent of the total valuation and the position in 1962 remained practically unaltered. The total valuation of the municipal area increased by approximately 44 per cent during this eight-year period - i.e., from R63,000,000 to R113,000,000.

It is interesting to note that the rating system in force in 1954 compared favourably with that of 1962. In 1954, rates amounting to 18d in the £ on site valuation, and 2d in the £ on total valuation (site plus improvements) were imposed. That is, a composite rate in the ratio of 10 on site to 1 on improvements. In 1962, we have seen that the rates were 4.82c per Rand on site and 0.53c per Rand on total valuation, thus giving the same ratio of 10:1. This ratio has, however, fluctuated during the intervening years. In 1949 the ratio was 21:1, in 1955 it was 18:1, in 1956 the ratio dropped to 12.2:1, and in 1959 it went even lower, to 8.23:1. The reason for the decrease in the ratio in 1956 was that in this year the 1952 valuation came into force, raising the total valuation of the East London municipal area from R49,651,736 (1955) to R72,032,960 (1956). Rates levied were at their highest in 1946 with an equivalent flat rate on total valuation of 7d in the £. In 1955 the rates were also very high, the flat rate equivalent being 6.125d in the £, made up from a composite rate of 23.8d in the £ on site value and 1.4d in the £ on total value. Owing to the large increase in the valuations brought in in 1956 the rates could be lowered in that year to 11.2d in the £ on site value and 1.0d in the £ on total value, without loss in revenue to the municipality. Either by manipulating the rating system or by increasing the municipal valuations, council revenue from rates has increased annually over the past 15 years, with the exceptions of the years 1958 and 1959, when concessions were made to commercial interests, and the rates and ratios were reduced. In 1959 the rates stood at 9.4d in the £ on site and 1.3d in the £ on total value, giving

a ratio of 8.23:1. Attempts are being made, however, to stabilize the rating ratio at 10:1.

Since the greater proportion of the rates is levied against site, this method of rating could be said to be of advantage to the industrialists, as the value of land in the industrial areas is far below that in the city area.

There is no Water Rate applicable in East London as water consumption is metered independently. A Public Health Rate is, however, included in the system of general rates.

The Flat Rate equivalent for East London in 1962 was 2.02c in the Rand.

Divisional Council Rates

East London municipal area:
0.2864c per Rand on total valuation
Port Elizabeth municipal area:
0.182c per Rand on total valuation.

East London municipality : water tariff (P.N. 37/1961)

Section 4: industrial purposes:

Up to 3,000 gallons per month ...	R1-11 minimum
3,001 to 30,000 gallons per month	R0-37 per 1,000 gallons
30,001 to 75,000 gallons per month	R0-30 per 1,000 gallons
75,001 to 150,000 gallons per month	R0-27 per 1,000 gallons
150,001 to 250,000 gallons per month	R0-23 per 1,000 gallons
Over 250,000 gallons per month	R0-20 per 1,000 gallons.

Section 6: building purposes:

Alterations and additions Value of building work	Building water fee	Allowance
Up to R800-00	R2-00	4,000 gallons

For building work of a value in excess of R800-00 the following tariff shall apply:
An application fee of R4-00 (not refundable), plus a deposit of a quarter per cent of the total value of the building work (refundable on completion). The actual supply shall be metered and charged for at the rate of R0-37 per 1,000 gallons.

APPENDIX 'E'

Measures approved by the government for the promotion of industry in Border Areas

1. Assistance in the provision of basic services such as power, water and transport.

2. Assistance in the provision of housing for white employees (the responsibility for Bantu housing already rests with the Department of Bantu Administration and Development).

3. Increased allowances in respect of depreciation of factory buildings and equipment.

4. Inclusion of the costs of moving industries to a Border Area, as calculated by the Permanent Committee in the capital to which depreciation allowances apply.

5. Reimbursement in special cases, to a manufacturer to a maximum extent of 20 per cent of the costs of building a factory, or a guarantee of up to 40 per cent of the costs of construction for a period of ten years (the purpose of this guarantee being to make it easier for manufacturers to raise mortgage loans with financial institutions).

6. Erection and lease of factory buildings and laying out of fully planned industrial estates.

7. Where necessary, the provision of extra funds to the I.D.C. for investment on special terms in Border Area Industries.

8. Maintenance of the principle of wage differentiation in respect of Border Areas, in so far as such differentiation can be justified on grounds of lower productivity and lower costs of living.

9. Raising of the low productivity of Bantu labour by means of trade schools in Bantu Areas.

10. Concessions to industrialists in respect of railway rates.

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