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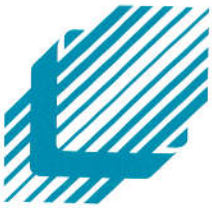

Regional inequality in South Africa: Issues, measurements and policy implications

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Preface

The spatial allocation of resources in South Africa has contributed to the country's high levels of inequality in economic and social conditions. Various regions are severely limited in opportunities for employment and income, with associated negative consequences for attainment of real democracy. Within this context, transformation aimed at reducing disparities within South Africa must take into account regional differences. This report is a first step in providing the necessary information about the degree and sources of regional inequality.

This study has been undertaken under the aegis of the Centre for Policy Analysis of the Development Bank of Southern Africa through the Programme in Regional Management. The author of the study is Associate Professor of Economics, University of Massachusetts and Visiting Research Fellow, Development Bank of Southern Africa.

The purpose of the study is to identify possible effects of agricultural, industrial, trade and other national policies on regional income inequality and particularly on the poorest regions. The goal is to contribute to the creation of a society which is economically and socially sustainable for all of its members. Inequality across regions is only one aspect of inequality which transformation must address, but it is a critical element in political as well as economic stability in the transition to a more equitable society.

Contents

Executive summary

Purpose

The purpose of this report is to measure levels and analyse sources of inequality across regions nationally and within former development regions E (KwaZulu/Natal) and F (Eastern Transvaal).

Inequality analysis is undertaken to provide a basis for assessing differential regional consequences of national policy. The two regions chosen for more detailed examination illustrate a range of regional implications of national policy. For example, growth in the two regions has been extreme, with KwaZulu/Natal having abnormally low and Eastern Transvaal abnormally high growth. Population distributions are divergent, with Region E having a very high proportion of the population in former homelands and Region F a low proportion. The sectoral composition of the regions is also dissimilar, in that Region E is highly concentrated in manufacturing, while Region F is unique in the importance of extractive and energy sectors. Comparing these two regions highlights how different population and sectoral structures have affected growth and hence inequality among regions.

Scope

The study is limited by data availability to the 1980s, with some reference to the 1970s. For this period, several groups of regions have been examined. The most aggregate group is the former development regions; the next level of disaggregation distinguishes between the former homeland and provincial parts of the development regions. From this disaggregation it is possible to compare inequality both across and within provinces and homelands. In addition, comparisons can be made between former TBVC and 'self-governing' homeland areas. The final level of disaggregation is to the level of the magisterial district, which is used for the analysis of inequality within Eastern Transvaal and KwaZulu/Natal.

Methodology

Conventional measures of inequality, including coefficients of variation and ratios of maxima to minima, are calculated for the three levels of regional disaggregation for several demographic and economic variables. The significance of inter- and intraregional inequality is determined by simple statistical techniques such as analysis of variance. For Regions E and F, econometric estimation of equations derived from the limited variables available allows some comparison of the structure and behaviour of each region with that of the country as a whole.

Assessment of the impact of various national policies is made on the basis of descriptive economic and demographic data for each region supplemented by regional input, import and export multipliers derived from existing input-output and social accounting matrix data. These assessments are largely qualitative rather than derived from formal, quantitative models.

Summary of results

Summary of inequality results

Several patterns emerge from the data on regional structure, performance and inequality. At the development region level there is a group of three poor regions (former development regions G, D and E) which have in common low

rates of urbanisation, economic activity and participation, but high shares of females in the population, high dependency ratios and population growth rates.

At a more disaggregate level, however, the pattern is less clear. In the former provinces, for example, the most successful areas (the former PWV, Western Cape and Eastern Transvaal) all succeeded with very diverse leading sectors. The poorer provinces, on the other hand, do resemble the poor development regions in economic and demographic structure.

Former homeland areas, however, do not exhibit a common set of features associated with poverty. The poorest areas are unlike each other in demographic characteristics such as dependency ratios, female shares and urbanisation rates. What they have in common is the position of having been bantustans with impoverished resource bases.

For the limited time period considered, inequality in summary indicators such as GGP per capita generally increased over time at the level of subregions. This result is troubling, particularly because at the same time inequality declined for a number of demographic variables such as urbanisation rates, dependency ratios and participation rates.

Inequality within groups of subregions highlights other problems for distributional policy. As expected, inequality is greatest for the group including both former province and former homeland subregions. However, inequality among former homelands was also very high, indicating that race is not an exclusive determinant of income variation. Although all former homelands are poor, the economic and demographic differences among them are significant.

Within KwaZulu/Natal and Eastern Transvaal inequality is dominated by the difference between former homeland and provincial areas. Comparing inequality within each group of districts in KwaZulu/Natal, those variables for which the homeland average values differ most from the non-homeland averages are also those for which homeland inequality is lower than provincial inequality. Therefore, what makes the former homelands distinct as a group also makes them more similar to each other. This is the reverse of the result obtained at the level of development regions. In Eastern Transvaal, however, inequality among the former homeland districts is greater than across provincial areas, which supports the national result.

Summary of policy implications

Policy implications will be summarised for two sectors, manufacturing and agriculture. In both cases the regional impact of national policy depends upon the specific distribution of each region's economic activity. Those regions with disproportionately high shares of manufacturing will be particularly vulnerable to South Africa's post-liberalisation role in the international division of labour. If, for example, national policy is designed to encourage South Africa's entry into high technology or high-end consumer goods, the richest regions will reap large benefits and the manufacturing base of the poorer regions be disadvantaged further. If, on the other hand, market opportunities are promoted either within South Africa or in neighbouring states for mass-market products, manufacturing in KwaZulu/Natal and the Border Kei areas could be the largest beneficiaries, *ceteris paribus* (other things being equal), with a net equalising effect.

Similarly, in agriculture the crop mix in each region determines its likely future after both land reform and liberalisation. In general, if exports are the main target of government policy, the already richer regions will gain overall because of both domestic conditions of production and international prices and demand for various crops. Policy aimed more at food production for domestic use – also because of location of crop production and the nature of domestic demand – is more likely to benefit the relatively poor regions.

1. Introduction

This report summarises a larger study of levels and sources of regional inequality in South Africa. Inequality is analysed both across regions nationally and within former development regions E (KwaZulu/Natal) and F (Eastern Transvaal). The two regions chosen for detailed examination illustrate several regional implications of national policy. For example, growth in the two regions has been at opposite ends of the national spectrum, with KwaZulu/Natal experiencing low growth relative to the national average and Eastern Transvaal showing unusually strong growth. Population distributions in the two regions are divergent as well, in that Region E has a very high proportion of population in former homelands and Region F a low proportion. The sectoral composition of the regions is also dissimilar, with Region E abnormally concentrated in manufacturing and Region F uniquely tied to extractive and energy sectors. Comparing these two regions highlights how distinct population and sectoral structures have affected growth and hence inequality among regions. National employment and industrial policy will have very different effects on these two regions due to their varied structures.

2. Analysis

2.1 Scale of analysis

The study is limited by data availability to the 1980s, with some reference to the 1970s. For this period several groups of regions are examined.

- The most aggregate group is the former development regions, numbering nine.
- The next level of disaggregation distinguishes between former homeland and provincial areas of the development regions, giving 23 subregions. From this disaggregation it is possible to compare inequality both across and within provinces and homelands. In addition, comparisons can be made between former provinces and between the TBVC and 'self-governing' former homelands.
- The final disaggregation is to the level of the magisterial district, which is used for the analysis of inequality within KwaZulu/Natal and Eastern Transvaal.

2.2 Methods of analysis

Conventional measures of inequality, including coefficients of variation and ratios of maxima to minima, are calculated at the three levels of regional disaggregation for several demographic and economic variables. The significance of inter- and intraregional inequality is determined by simple statistical techniques such as analysis of variance. For former Regions E and F, econometric estimation of equations derived from the limited data available allows some comparison of the structure and behaviour of each region with that of the country as a whole.

Assessment of the impact of national policies is made on the basis of descriptive economic and demographic data for each region, including regional input, import and export coefficients derived from existing input-output and social accounting matrix data. These assessments are largely qualitative and not generated through formal modelling of policy effects.

average) and participation rates (64,5 per cent of the average), but the highest informal sector participation rate (206 per cent of the average). Regions D and E are again similar to Region G in that, with the exception of population growth, both are well away from the national averages in all of these indicators of regional performance.

3.3 Structure and performance by subregional group

From Table 1 an identifiable bloc of poor regions within South Africa is evident even at the level of aggregation of the development region. However, the nature and source of the relative poverty of these areas are as much obscured as revealed by a development region comparison. The lower part of Table 1 presents a disaggregation into the 23 subregions, arranged in three groups. The first group, labelled for brevity 'Republic of South Africa' in Table 1, is the Republic of South Africa with the former homelands subtracted. This group comprises the four former provinces of South Africa, namely Natal, the Orange Free State, the Cape and Transvaal. In constructing development regions provincial boundaries were replaced except for those of Natal, which remained largely intact in the new Region E. As a result each of the former provinces besides Natal extended into more than one development region, as indicated by the letters preceding the province names in Table 1 (for example, Transvaal was divided among development regions F, G, H and J). The second group of subregions is the former so-called 'self-governing' homelands, black areas officially part of South Africa, and the third group is the former 'independent' homelands.

For the provincial subregions, the second block of results in Table 1, there is noticeable variation in economic performance and status. For income measures, the clear leader among these subregions is the Region H portion of Transvaal, which includes the former PWV (now Gauteng province), the most developed part of the country. This subregion was also the most urbanised, the most educated (averaging education levels for 1980 and 1989) and the highest in population growth rate and economically active population ratio. At the same time, it was the lowest in dependency ratio and below average in the share of females in the working-age population.

These indicators describe an area in which the conditions for growth were favourable, but the PWV still fell behind other successful regions during the 1980s, particularly the Region F portion of Transvaal. Thus apparently favourable indicators for the PWV were not sufficient to sustain growth during the national economic decline during the 1980s, whereas Eastern Transvaal conditions did prove able to support growth.

In Table 1 Eastern Transvaal (Region F Transvaal) shows very low urbanisation, education and population growth compared to both the PWV subregion and the national average. On the other hand, this subregion had shares of females and dependency ratios similar to those of the PWV subregion. These differences further complicate an assessment of the sources of regional growth, since low urbanisation and education levels typically are associated with lower growth rates.

The other well-off provincial subregion is region A, which includes most of the former Western Cape province. This

subregion has high urbanisation and education, while both the share of females and the dependency ratio are also high. The labour force in this subregion is therefore in between that of the PWV and Eastern Transvaal – neither extremely biased toward migrant workers who leave dependents behind nor excessively reliant upon jobs requiring very low education levels.

The variability in economic and social indicators among these successful subregions implies that growth can be accomplished by many economic structures and strategies, ranging from the mixed economy in the Cape to the industrial concentration of the PWV, to the extraction and beneficiation of Eastern Transvaal. The poorer subregions, on the other hand, have a number of features in common.

Poor provincial subregions include parts of Regions B, C, D and G. The provincial subregions of B and D are part of the former Cape Province, C was in the Orange Free State and G in Northern Transvaal. These areas have in common lack of proximity to urban or industrial centres, as evidenced by low urbanisation rates (with the exception of Region D which includes Port Elizabeth and East London), low education levels and high dependency ratios. The poverty of the Region G subregion of Transvaal is such that the population growth rates have been negative during the 1980s. The only development regions with subregional data, the Cape and Transvaal, thus both appear as internally highly unequal provinces including both very rich and very poor subregions.

Variation is also pronounced across the homeland subregions. Among the 'self-governing' homelands, for example, two are in Region G. The 1989 GGP per capita in Gazankulu was 3,7 times higher than that of Lebowa, despite Gazankulu's lower urbanisation rates, participation rates and share of females in the population, which typically would be associated with a lower level of development. That the GGP per capita is in fact higher in Gazankulu suggests again that sources of poverty are more complex or localised than data on a development region level can capture. A similar situation is evident for the 'independent' homelands. Within Bophuthatswana, for example, the part located in development region J is considerably richer even though it has a relatively low urbanisation rate, high population growth and an almost average share of females. Location of mineral resources is therefore the primary determinant of the variation in income within Bophuthatswana.

Despite this variation within subregional groups, Table 1 clearly shows that regional poverty runs along racial lines. For all indicators, the former homelands (which are virtually all black) as a group fall substantially below the group of subregions excluding homelands. The lesson to be learned from interhomeland inequality, nonetheless, is that national policy must target the poorest of these areas specifically and not rely on general policy aimed at the former homeland populations.

3.4 Regional inequality

The relative importance of variation within and across the several groups of regions and subregions is described in Tables 2 and 3. The inequality measures in Table 2 are calculated for two levels of aggregation and six groups. At the top of the table is the development region group, followed by five groups at the subregional level.

- The first of the subregional groups

includes all 23 subregions of the nine development regions.

- The second group, with nine subregions, comprises the four former provinces.
- The third, with 15 subregions, is the former provinces plus the former 'self-governing' homelands.
- The fourth is the former TBVC states, or the 'independent' homelands, with eight subregions.
- The fifth is the TBVC plus the 'self-governing' homelands, comprising 14 subregions.

A proxy for racial differences is comparison of the group comprised of the Republic of South Africa less homelands (the former provinces) with the group including all former homelands. It must be emphasised that these two groups are only a rough approximation for measuring racial inequality because the majority population across all subregions is black.

Table 2 presents two measures of inequality (the coefficient of variation and the ratio of maximum to minimum) for all the groups as well as the group averages for the indicators shown in Table 1. As expected from the relative levels of aggregation, variation is less across development regions than within the groups of subregions. For example, the coefficient of variation for the nine development regions in personal income per capita for 1985 is 0,4421, while the coefficient of variation for the 23 subregions is 0,5936. The same is true for the second measure of variation, the ratio of maximum to minimum personal income per capita, which is 6,5 for the development regions but 58,9 for all subregions.

Comparison of inequality measures for the nine regions with those for the group of 23 subregions (in the second block of Table 2) illustrates an additional consequence of the level of aggregation. While the coefficients of variation for personal income and GGP per capita for the development regions dropped between 1970 and 1989, the same measures of inequality for all subregions increased. Thus, at the development region level inequality seems to have improved overall, while for the subregional data inequality has grown. In other cases, the reverse inconsistency applies. For example, inequality in the economically active population declined across the 23 subregions but increased slightly for development regions. These inconsistencies in measured inequality by level of aggregation stem from the inclusion in development regions of both provinces and homelands, with the former provincial areas raising the regional average relative to the homeland average.

Where results for different degrees of aggregation conflict with each other, the disaggregate measure gives more information and should therefore be taken to be a better description of inequality. The conclusion follows that inequality has increased in the summary indicators of economic performance, GGP and personal income per capita, despite small improvements in inequality of other variables such as urbanisation rates, population growth, dependency ratios, economically active population, participation rates and education. A tentative hypothesis then emerges from these findings: much greater equalisation of the improved variables must take place before they will have a significant effect on the overall economies of the poorer regions.

Table 3, an ANOVA table for homeland versus non-homeland subregions, quantifies and evaluates the statistical significance of the inequality measures in

Table 2. For all but the 1980 functional urbanisation rate, the table shows a statistically significant variation between former homeland and provincial groups relative to within-group variation. The absolute difference in the averages for former homeland and non-homeland subregions is shown in the last column as 'White region premium', labelled such with the qualification noted above that the former provinces are also predominantly non-white. The figures in this column reflect the size of the gap between the homeland and the provincial averages for each of the variables listed. For example, the per capita personal income in former provinces in 1985 was R2948 higher than the per capita income in the former homelands. Similarly, the GGP per capita was higher in 1989 by R4036 in the provinces. Also greater in the 'white' areas were urbanisation and functional urbanisation rates, participation and economically active rates, education and provision of health services. Lower in the provincial regions (entries in the column with negative signs) were population growth rate, the percentage of females, dependency ratio and informal sector participation rate.

The picture painted by these data is not unexpected, but the size of the gaps revealed is quite dramatic. Moreover, for many key variables the gap has widened. For example, the personal income and GGP per capita have become more unequal over time as shown by the increasing white premium, as have the majority of the other variables. Widening gaps in the percentage of females and the economically active population premiums point to growing inequality in the future, although this possibility may be offset by the declining gaps in population growth rates and in the dependency ratio. Note also that the informal sector participation rate has been falling in former provinces relative to homelands, suggesting that the structure of employment is becoming more dissimilar, with homeland employment becoming relatively more concentrated in the low pay and highly uncertain informal sector jobs.

3.5 Sectoral structure and inequality

In explaining inequality, sectoral structure across regions is a key variable. Table 4 describes the sectoral composition of both GGP and the economically active population for five regional groupings. For the nine development regions, manufacturing is the largest sectoral contributor to GGP, followed by community and personal services. However, large differences among regions are obvious from the table.

One of the most notable differences between the former provincial and homeland groups arises in variation of the GGP share accounted for by community, social and personal services. The average for all nine development regions in Table 4 is a share of 17,8 per cent of GGP in this sector. For the former 'self-governing' homelands, the range of share in GGP is from 40,2 to 59,8 per cent, and for the former TBVC regions from 14,5 to 52,8 per cent. These levels reflect the dependence of the homelands on transfers from the South African government. Formal government welfare expenditure in the homelands was 56 per cent for the 'self-governing' areas and 42 per cent for the TBVC territories, compared to 12 per cent for South Africa as a whole (Mbongwa & Muller, 1992). For the TBVC, an average of only 15 to 20 per cent of the budget came from their own revenues at the end of the 1980s (Nattrass & Nattrass, 1990).

Variation in sectoral shares of GGP

within groups of regions is shown in Table 5. The most interesting feature of this table is that variation between the former provinces group ('RSA less homelands') and the former homelands is not necessarily greater than differences within either group. In agriculture, for example, the ratio of maximum to minimum share in GGP for the former homelands group of subregions is only 7,14, compared to a ratio of 12,73 for the former provincial group. At the same time, inequality as measured by the coefficient of variation for the percentage of GGP derived from agriculture is 0,55 in the homelands and 0,49 in the former provinces. Moreover, the ratio of the average in the provincial group to the average in the homelands (shown in the last row of the table) is low at 1,09.

A similar pattern emerges for the other major sectors (manufacturing, wholesale and retail trade, and finance and insurance), but the sector including community and social services is an important exception. Community, social and personal services is the largest sector in all regional groupings and in this sector variation within the two homeland groups is larger than variation within the group of former provinces. The coefficient of variation is 0,28 for the latter group, versus 0,46 for the TBVC. The homelands have had a very unequal distribution of services, implying inequality in the location of government expenditure in these regions. The policy implication is to disperse government activities within the homelands to equalise expenditure. Note, however, that the former homelands already have a considerably higher share of GGP accounted for by services than the rest of the economy. Intrahomeland redistribution rather than expansion of existing expenditure would therefore be the more attractive alternative from the perspective of restraining government expenditure. Unfortunately, this would redistribute resources away from other homeland regions that are only marginally better off, exacerbating the already high tensions among former homelands.

In any case, accelerating growth of the less-developed regions of South Africa will require expansion of production activities as well as government services. Identification of sectors which should expand requires choice among sometimes competing goals. For example, increasing labour productivity may conflict with growth in employment. Table 6 presents the GGP per employed (a proxy for labour productivity) for the major sectors in 1990. These data are available only for the nine development regions, but even at this level of aggregation large differences among sectors and regions are evident.

Of the dominant sectors, manufacturing exhibits the largest interregional variation in GGP per employed with a coefficient of variation of 0,6660. The GGP per employed is highest in Region F (R93,6) and lowest in Region G (R20,6), compared to the average of R34,5 for all development regions. The result for Region G is consistent with the indicators of economic development shown in Table 1, which identify this region as the poorest. Two other poor regions, namely B and C, are close to Region G's low level of productivity.

These figures imply that expansion of manufacturing in Region F would yield better results as measured by increasing national average productivity. The participation rate in Region F, however, is 66 per cent for 1989 compared to only 38 per cent for Region G (from Table 1). Creation of manufacturing jobs concentrated in Region F will only exacerbate the interregional maldistribution of job opportunities.

South Africa thus faces the usual trade-off: based on the existing structure and location of manufacturing, a choice must be made between increasing productivity and improving access to employment in poor areas. However, the terms of the trade-off are unusually unfavourable for this country, since the GGP per employed in manufacturing in Region G is only about one fifth of that in Region F. Reorientation to Region G (and to Regions B and C) would require a very large sacrifice in productivity (assuming, of course, *ceteris paribus*).

Moving from manufacturing to agriculture, Tables 7 and 8 reveal the extent of interregional differences in agricultural potential. Arable land per capita in Region C is, at 1,59 hectares, more than 12 times greater than the 0,13 hectares per capita available in Region D. (Region H, the former PWV, is not considered because of its unique urbanisation.) However, the value of agricultural production is not determined solely by the availability of land, as evidenced by the fact that Region A's agriculture achieves three times the value per hectare of Region C, with less than a third as much arable land per capita. A number of additional factors intervene, such as the mix of farm and grazing land, rainfall and market conditions for the various crops.

To determine whether distribution of agricultural resources is more unequal in the provinces or in the homelands, Table 8 provides measures of inequality by regional grouping for the variables given in Table 7. For the nine provincial subregions comprising the group 'RSA less homelands', the coefficient of variation for hectares per capita and the percentage of arable land is larger than for the group comprising all the homelands ('TBVC & homelands'). However, the coefficient is smaller for arable land per capita and value per hectare.

Although in the share of arable land the homelands are more similar than the former provinces, they are less similar in arable land per capita. This difference is due to the large population shifts into the various homelands resulting from relocation of black populations and migrancy. Thus, although the homelands were relatively equal in the amount of land available, varying population densities resulting partly from apartheid have stretched resources unequally in the different areas.

From the bottom block of Table 8, it is also clear that the former provincial areas of South Africa have almost six times as much arable land per capita as the former homelands, but only 1,3 times as great a share of arable land. The provinces also have almost seven times the amount of total land per capita, which is a result of the small area ceded to homelands when they were created. These ratios reinforce the argument that scarcity of resources in the homelands was created by the policies of first limiting homeland territory and then removing populations to the homelands.

Agriculture in the former provincial areas is more similar because of the size of government support for large-scale commercial farming. With the high levels of subsidy, any natural regional differences which normally would show up in profitability and viability of farming are obscured. The similarities within the group 'RSA less homelands' thus should not be taken to mean that conditions of production are similar, or, that in a market environment the agricultural sector could be relied upon as a source of equalisation across regions.

The variation in agricultural resources

and uses shown in Tables 7 to 9 results in wide variation across regions in the structure of commercial agriculture. From Table 10 it is clear that the average size of a field crop farm varies from 261 hectares in Region D to 1,075 for Region A, while still wider ranges obtain for other agricultural sectors. For agriculture as a whole, the average farm in the region with the largest farms (Region B, concentrated in animal products) is over nine times the size of the smallest average regional farm (as found in Region H).

Regional variation in gross income per farm is also high, as is disparity in gross income per hectare. For the latter, which is an approximate measure of farm productivity, the ratio of highest to lowest (Region E to Region B) average is 4,1 for field crops and 10,4 (Region H to Region B) for horticulture.

Farm debt is highly variable as well, indicated by 'Debt to income ratio' in Table 10. By crop type, for field crops the ratio of highest to lowest (Region D to Region E) average farm debt is only 5,5. For horticulture the ratio is 3,1 (Region F to Region G) and for animal products 4,8 (Region B to Region H).

Finally, labour use is very different by region as well as by crop type. In field crops, the range is from 0,379 employees per hectare (Region A) to 0,018 (Region C), giving a ratio for maximum to minimum of 21,1. A similar range appears for animal products, but for horticulture the regions are more similar, with a ratio for maximum to minimum of 5,2 (Region H to Region C).

Several patterns can be observed in this table, although given the serious data limitations and the level of aggregation, they must be regarded as tentative. First, regions with the lowest utilisation of labour (B, C and D) are also the highest debt regions. These regions seem to be paying the price for capital-intensive agriculture in an era of high interest rates. Similarly, Region C has the second largest average farm size in commercial agriculture but only average gross income per hectare as well as high debt, suggesting that farm size may not be positively correlated with performance. This suggestion is strengthened by the data in Table 7, which shows that Region C has a relatively high percentage of arable land and the highest arable land per capita.

For the former development regions ranked lowest in per capita GGP and highest in unemployment (Regions D, E and G), farm size, farm income and income per hectare are all at a medium level. However, in Regions E and G, the debt/income ratio is only average or slightly below average. These two regions also have relatively low labour use per hectare, although this may be explained for Region E by the very large share (92,64 per cent) of land devoted to animal products. However, the same explanation does not hold for the other two regions, which have close to average allocation of land by type of production. A provisional result then is that the poorest regions do not use more of their abundant resources and cheap labour, than regions with higher incomes and lower unemployment. These regions therefore form a group which is distinguished by low success in agriculture as measured by indebtedness relative to income and by a structure of production that appears to be inconsistent with their resource endowments.

Even at this level of aggregation, more trade-offs in policy choices are apparent. For example, if employment growth is the goal, expansion of field crops would

be the appropriate strategy for region B, but from Table 10 it is clear that in this region field crops earn only half the income per hectare than horticulture. On the other hand, horticulture – the highest income generator – employs fewer than half as many workers per hectare as field crops. Fortunately, such trade-offs do not apply everywhere: in South Africa the highest level of employees per hectare is in horticulture, which is also the sector with the highest gross income per hectare.

4. Policy implications

A core economic principle of the government of national unity is liberalisation. In the current South African context this means removal of government domestic subsidies such as the Regional Industrial Development Programme (RIDP), the lowering of trade barriers and the removal of fixed-price marketing schemes in agriculture. Given space constraints, the regional policy implications of deregulation are considered briefly here for manufacturing and agricultural sectors only. For both of these sectors, the starting-point is a highly protected and concentrated structure of pricing and production which will be shocked by the new policy regime.

For simplicity, the discussion of manufacturing is limited to RIDP firms, which were also the only source of employment growth in manufacturing during the 1980s and the source of almost all manufacturing employment in the poorest regions. In these firms reduction of subsidies has already had a dramatic impact on employment and output. For example, one third of manufacturing employment was lost in Ciskei between 1990 and 1992 after the first reform of subsidies (ECOSA, 1992). This is not surprising in light of the expense of creating the RIDP jobs, which at an investment of R31,727 per job required ten times the investment elsewhere in South Africa. (See Table 11.) Such expense was supportable only with the extensive subsidies provided to keep black employment growth away from white areas (the wage bill, for example, could be subsidised up to 90 per cent).

Given that removal of subsidies will be contractionary in the short term, the question is: what are the longer-term prospects? The typical manufacturing firm locating in the poor areas is small scale, uses simple technology and employs mainly female labour. The firms produce mainly consumer goods such as clothing and footwear, electronics (which involves mainly assembly), plastics and metal fabricating.

Survival and growth of these firms depend upon their ability to maintain and ultimately expand their markets. Looking first at demand, a positive factor is the redistributive goal of the government. Consumer goods produced in the poor areas are largely aimed at the lower end of the market and successful redistribution would expand demand for these products. A large negative influence, however, is trade liberalisation. The products of the RIDP manufacturers are competitive with those from newly industrialising countries and with the output of multinational corporations in heavily subsidised enterprise zones in other developing countries. Opening up the South African market to imports of mass-market consumer goods is a direct threat to employment in the poorest parts of the country. This loss of market is all the more likely in light of both rising input costs associated with deregulation and the relatively low productivity of these firms. Moreover, labour legislation which raises wages or equalises wages by

gender will further erode the profitability of these firms.

Liberalisation is thus in conflict with equalisation of regional conditions from the perspective of the typical manufacturing firm in poor areas. The poorer regions will fall further behind with extensive deregulation and less income from employment will flow to these areas. However, this unfavourable outcome results from the existing structure of production in poor areas, which was determined not by economic but by political imperatives. The remaining question is whether the structure of production could be changed to support a different competitive strategy which might enhance growth in these areas.

Some sectors of manufacturing in South Africa have succeeded in pursuing a competitive strategy based on the characteristics of the product rather than on cheap labour. Even clothing and footwear firms engaged in this type of production have found market niches which are stable or indeed growing. Largely based on exports, these sectors may be positively affected by trade liberalisation. Unfortunately, requirements for this competitive strategy, called differentiation, are not typically found in poor areas. They include skilled labour which can perform a range of tasks, proximity to suppliers of input, less hierarchical management structures – all of which support high responsiveness to shifts in consumer tastes. (See, for example, Porter, 1980, 1990 and 1990, and Kaplinsky, 1993.) The South African experience supports this contention, inasmuch as location of such firms is concentrated in the richer areas of clothing and footwear production, such as the Cape Town environs. Clothing manufacturing in or neighbouring KwaZulu, on the other hand, remains targeted at the mass market.

Opportunities do, therefore, exist for successful production of those goods for which manufacturing in poorer regions is specialised but existing structures of production are a barrier to realising such possibilities. Moreover, the typical 'new competitive' firm is more capital intensive, thus reducing the employment multiplier of manufacturing expansion. The trade-off then is between loss of markets as a result of liberalisation and a transformation of production which reduces the labour intensity of production and therefore the equalising effect of growth.

In agriculture, similar constraints to regional equalisation arise from the inherited apartheid allocation of resources. Arable and potentially arable land is too limited in former homeland areas to support a viable small farmer option for the majority of the rural population. Institutional reform to provide credit and state expenditure on infrastructure can soften the land constraint to some extent, but there is limited room for improvement.

Part B: Intraregional inequality

5. Analysis

5.1 Regional structure and performance

The range of characteristics involved in location decisions is demonstrated clearly by the varied experiences of Regions E and F. Region F, as noted earlier, is relatively land and resource rich, while Region E's advantages include access to ports, a large urban agglomeration

(Durban-Pinetown) and generally good rainfall. Region E is comprised of Natal, all of KwaZulu and part of Transkei, making it a very populous and mostly black region compared to Region F.

Table 12 locates Regions E and F relative to other regions and South Africa as a whole for a number of socio-economic indicators. The last two columns of the table show that both regions have maintained almost constant population shares and density between 1970 and 1990, but that Region E is both much larger and more dense in population. In fact, Region E in 1990 was the most dense if one should exclude the heavily urban Region H, while Region F was below the national average density. Income disparities are also wide. Personal income per capita in Region F in 1985 was 91 per cent of the national average and the GGP per capita in 1989 was 181 per cent of the average. For Region E personal income per capita was 67 per cent of the average and the GGP per capita 63 per cent for the same years. Since the gap between GGP and personal income per capita is a rough indicator of net tax and transfer incidence, these figures suggest that Region E did indeed benefit while Region F lost from redistribution. A caveat, however, is that ownership of Region F resources is disproportionately absentee. Also, profits tend to flow out of the region to a larger extent than from other regions, so that private rather than state redistribution may explain the gap between GGP and personal income per capita.

Both regions grew at higher than average rates: Region F grew at 3,69 times and Region E at 1,31 times the South African average. Other similarities are urbanisation rates of 59 per cent of the South African rate in both regions and below-average functional urbanisation rates (79 per cent of the national average in Region E and 86 per cent in Region F) in 1989.

Moving down the rows of Table 12, the regions again diverge for the remaining indicators (except education level). After growing faster than average in population between 1970 and 1980, Region E fell to 75 per cent of the national growth rate during 1985 to 1990. For Region F the trend was reversed: the region grew more slowly than average in the earlier period but 7 per cent faster than average in the later years. Other indicators reveal that population structure is more favourable in Region F than E, although differences may be narrowing slowly. In Region E females comprised 55 per cent of the population in 1989 compared to 44 per cent in Region F, while the dependency ratio in Region E was 2,8 compared to 1,6 in Region F. Similarly the economically active population included only 26,4 per cent of Region E's population but 38,5 per cent of that of Region F. The participation rate was only 49,4 per cent in Region E relative to 66,3 per cent in Region F, and the informal sector participation rate was more than twice as high in Region E (31,8 per cent) as in Region F (14,8 per cent). Working in the opposite direction and reflecting the higher density in Region E are the medical indicators which are substantially better in this region. Educational levels are roughly equal between the two regions.

Region E is therefore poorer and more densely populated, with a larger share of females and dependents in the population and a more extensive informal sector. Taken together, these indicators depict a regional economy likely to be dominated by low-wage labour. The dual nature of Region E's economy does provide some grounds for optimism, since the transportation and communications infrastructure, as well as health and

education, are better developed. The Region F profile is more encouraging in growth and employment prospects, but with significant qualifications. Growth has been concentrated both sectorally and spatially, and is particularly vulnerable to changing market conditions. Table 1 shows that the personal income per capita in 1985 of the Transvaal portion of Region F was only R2875, making it one of the poorest of the 'white' areas in the country. In Region E, on the other hand, Natal had a personal income per capita of R4223. Therefore, despite rapid industrialisation and growth in Region F, the population in all areas was relatively poor in 1985.

5.2 Inequality

Inequality within former development Regions E and F exhibits somewhat different patterns than for the country as a whole. Table 13 allows comparison of inequality among the former homeland areas of Region E with inequality among non-homeland areas.

By coefficient of variation the largest inequality in GGP per capita is for all districts, with a coefficient of 1,3213, which is extremely high. For non-homeland magisterial districts the coefficient is 0,5074 and for homeland districts 0,4740. This implies that the greatest source of intraregional variation is between the two groups and that within each group variation is approximately equal. At the national level, variation among homelands was greater than variation across provincial areas. What the magisterial level data reveal compared to those of the national level is the existence of pockets of poverty within non-homeland areas of Region E. The incidence of poverty is therefore greater in, but not limited to, former homelands. At the national level, this poverty is obscured by the level of aggregation to subregions rather than magisterial districts.

Another important result from Table 13 is that urbanisation rates are twice as variable in the homeland as in the non-homeland districts. Policies aimed at the urban poor will therefore have a widely varying effect on the homeland districts.

Table 14 provides the results of an analysis of variance which calculates the effect of residing in a non-homeland versus a homeland district. Here among-group variance is variance between homeland and non-homeland districts, and the residual is variance within the homeland group. The advantages of the non-homeland districts are shown in the table as the 'Natal premium'. Premiums for all but the population density variable are significant at the 1 per cent level. Positive premiums are found for participation rate, urbanisation rate, economically active population shares, GGP per capita and male absenteeism. Negative premiums appear for population growth rate, unemployment rate, percentages of the population that are black and/or female, and the dependency ratio. As mentioned, it is noteworthy that for all but the population density variable the homelands are significantly worse off than the rest of the region. Indeed, the GGP gap between Natal and the former homeland districts is R669 or 85 per cent of the average homeland GGP per capita of R781.

Inequality within Region F is shown in Table 15 for the more limited set of variables available for this region's magisterial districts. Overall, the region is more unequal with respect to these variables than the country as a whole and this is particularly true for the non-homeland areas. Moreover, looking at changes over time it is clear that the region has become even more unequal.

Coefficients of variation for all the variables in Table 15, except population growth rates, have increased for the entire region. However, changes over time vary for the homeland and non-homeland groups. Non-homeland inequality has diminished with regard to economically active and participation rates. Homeland inequality has risen along with inequality across the entire region with the exception of the urbanisation rate, which has become less unequal over time in the homelands.

6. Policy implications

Consequences for policy from the inequality measures shown in the tables derive both from differences between each region and South Africa, and from differences between groups of districts within the region. Both Regions E and F appear to be overall more unequal than the country as a whole, so that redistributive policies sufficient to reduce inequality nationally may be less equalising in the region. The region needs a specifically intraregional redistributive policy to complement national efforts.

Since RIDP-type activities are the main, if not exclusive, source of formal sector employment in the poorer subregions of KwaZulu/Natal, national policy will affect intraregional inequality to the extent that it affects these specific sectors. As discussed earlier, liberalisation is likely to lead to contraction of these sectors. Therefore, intraregional inequality will increase unless counteractive policies of job creation are implemented.

Region F is specialised in extractive and beneficiation activities. These sectors tend to be competitive on the basis of cost. Liberalisation will have contradictory effects on these sectors, with the net benefit or loss dependent on the specific import and export structure of production. For example, while liberalisation may reduce the cost of imported intermediates by lowering import duties, if the rand depreciates the cost reduction is mitigated. Overall, however, the sectors in which Eastern Transvaal is strong appear to be less vulnerable than the sectors in which Region E is specialised.

What the strength of Region F relative to other regions implies for intraregional inequality depends upon the structures of production in the key sectors. In general, the production in which the region is concentrated is highly capital intensive, limiting its ability to generate employment growth. In addition, competitiveness of the main sectors depends crucially upon maintaining low costs of production. This in turn requires wage restraint, which will dampen any equalising effect of growth of the extractive and beneficiation sectors. Nonetheless, possibilities for growth and potential improvement in intraregional distribution are more positive in Eastern Transvaal than in KwaZulu/Natal under present conditions.

Additional policy implications derive from results of the larger study not presented here. The first important conclusion from the larger work is that while Eastern Transvaal may be better placed with respect to growth, it like KwaZulu/Natal is specialised in sectors which have been declining or stagnating at the national level. Moreover, the dominant sectors in both regions have been heavily subsidised and are likely to be negatively affected by reduction of government support. A second policy concern involves the import and export dependence of each region. As Region E has been a relatively successful exporter to the rest of South Africa, renewed

growth nationwide will help this region's economy disproportionately. At the same time, it is less dependent on imported intermediates than other regions, even in the key textile, clothing and footwear industries. Thus, liberalisation accompanied by rand depreciation will not hurt manufacturing in this region as much as elsewhere. For Region F, on the other hand, key sectors are highly import dependent and exports are mainly directed outside the country. Moreover, Region F may be disadvantaged by its specialisation in mining, because 60 per cent of the income generated in the region flow out in the form of company savings and dividends to holding companies outside the region (Ligthelm & Wilsenach, 1990; RDAC:F, 1991).

7. Conclusion

This summary has suggested that the problem of regional inequality in South Africa is both very serious and worsening. The overriding policy implication is that national policy aimed at broad goals such as job creation or sectoral strategies embodied in industrial policy must consider differential regional effects. Unhappily, taking into account spatial effects of policy reveals weaknesses in otherwise desirable policies. For example, increasing productivity by focusing on high-productivity sectors in manufacturing will advantage the already developed regions, increasing interregional inequality. In agriculture, high value-added crops and those likely to be successful export crops are also disproportionately grown in the richer areas (cane is a partial exception to this generalisation).

Adding spatial factors to the constraints on national policy therefore removes some flexibility in national decision-making. The trade-off between growth and equity characteristic of countries at South Africa's level of development is particularly sharp here, because equity has a strong interregional as well as interclass or interracial component. In this context, the economic and political consequences of overlooking the regional dimension could well make national policy unworkable.

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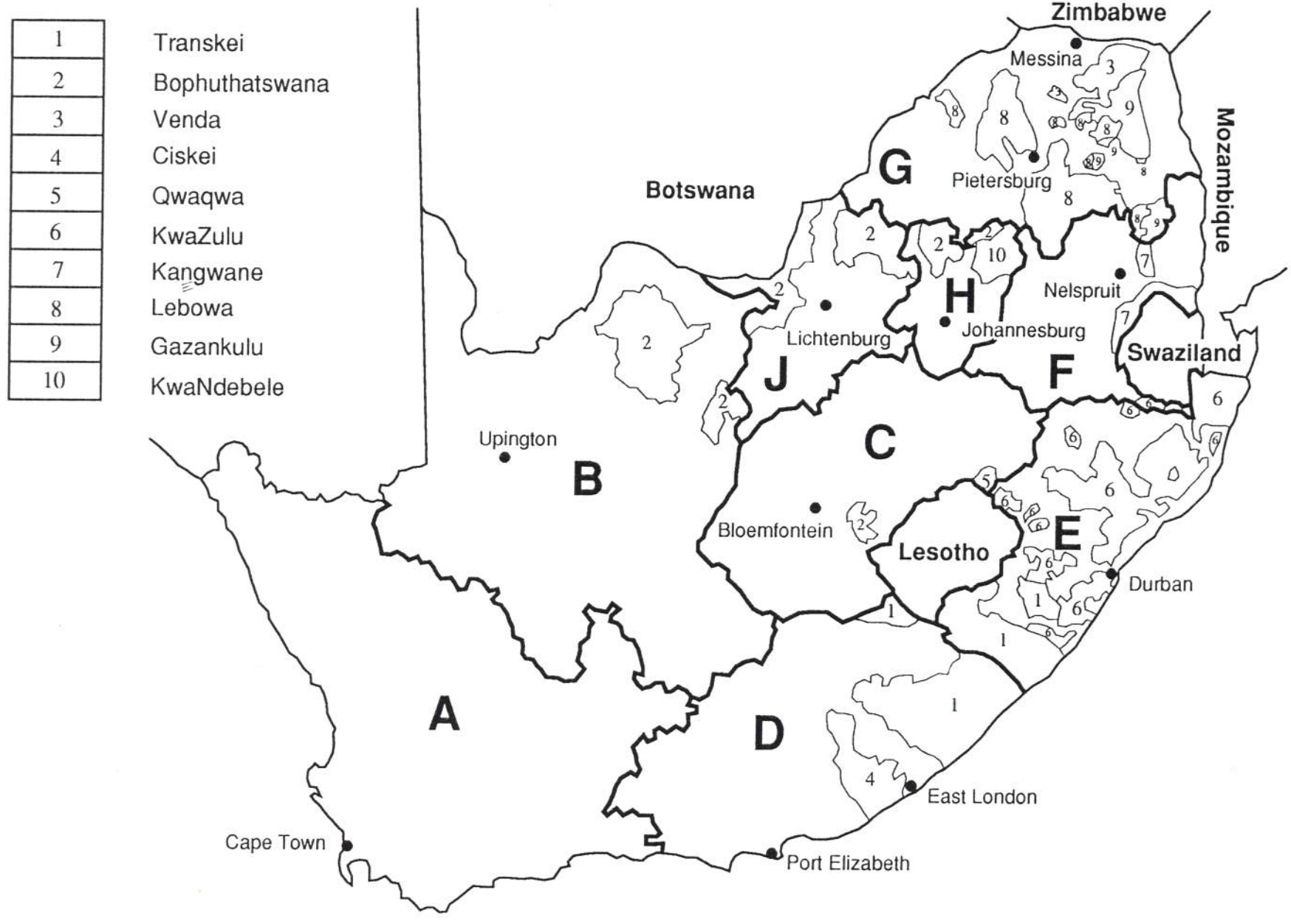
Map 1

Development regions in South Africa 1981-1994



Source: DBSA 1991

Map 2

PROVINCES OF SOUTH AFRICA 1994

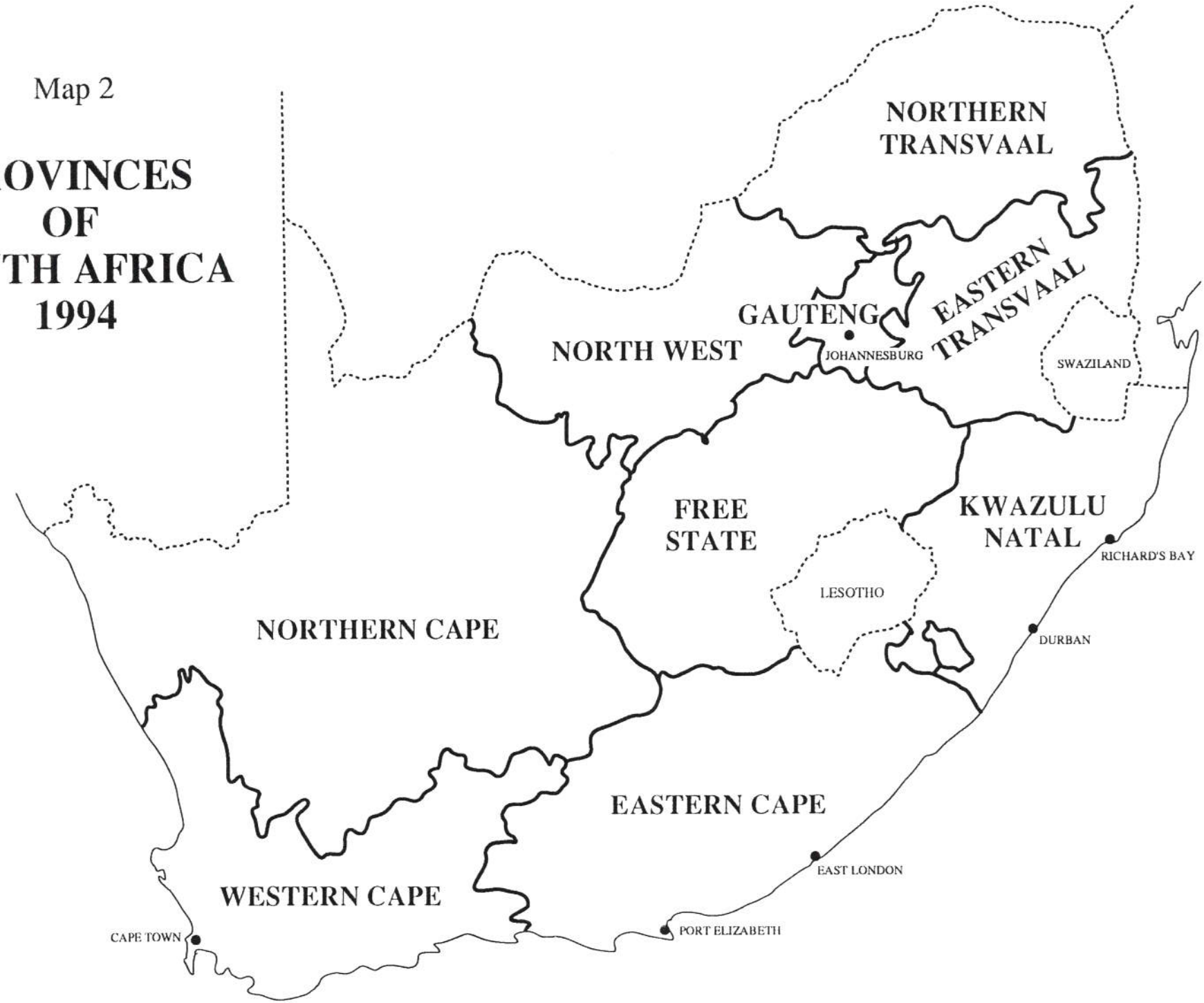


Table 1: Indicators of Regional Structure and Performance, 1970-1990

Development Region	Personal Income Per Capita (1985 Prices) 1980	1985	GGP Per Capita (1985 Prices) 1970	1980	1989	Urbanization Rate (Percent) 1970	1980	1989	Functional Urbanization Rate (Percent) 1980	1989
A	4,203	4,343	4,957	5,077	4,479	79	80	84	85	89
B	2,070	1,984	3,116	2,834	2,156	47	44	48	58	59
C	2,216	2,184	4,120	3,731	2,983	45	40	49	63	64
D	1,544	1,630	1,603	1,834	1,825	37	39	41	52	57
E	1,591	1,736	1,855	2,039	2,072	31	32	35	44	51
F	2,301	2,346	2,722	4,411	5,934	30	30	35	54	56
G	734	725	1,499	786	863	8	8	9	30	31
H	4,593	4,558	6,706	6,860	5,473	81	82	82	98	98
J	2,237	2,167	4,621	4,119	4,176	36	28	32	63	65
Average	2,513	2,580	3,531	3,576	3,285	47	46	49	62	65
Republic of South Africa*										
A (All)	4,203	4,343	4,957	5,077	4,479	79	80	84	85	89
B (RSA/Cape)	2,651	2,679	4,883	3,749	2,968	57	57	66	68	73
C (OFS)	2,429	2,418	4,274	4,132	3,300	46	44	54	62	65
D (RSA/Cape)	2,975	3,189	2,959	3,677	3,402	66	71	78	84	89
E (Natal)	3,620	4,223	4,226	5,686	5,959	62	62	70	76	84
F (Transvaal)	2,561	2,875	2,932	5,362	8,177	32	33	44	43	51
G (Transvaal)	2,420	2,836	5,490	3,500	4,122	21	22	34	29	38
H (Transvaal)	5,135	5,128	7,344	7,785	6,227	87	90	92	98	93
J (RSA/Transvaal)	3,043	3,073	5,988	5,913	5,347	47	38	46	62	68
"Self-Governing Homelands"										
C (QwaQwa)	340	410	336	357	860	4	9	13	85	64
E (KwaZulu)	660	684	205	236	415	11	22	23	35	43
F (KaNgwane)	756	728	203	339	334	4	17	12	98	68
G (Gazankulu)	367	436	203	309	607	2	3	4	24	25
G (Lebowa)	373	385	54	86	164	5	7	6	35	34
H (KwaNdebele)	861	668	0**	228	445	10	10	10	81	66
Independent Homelands"										
B (Bophuthatswana)	508	370	351	374	422	7	11	11	33	30
C (Bophuthatswana)	672	631	198	431	975	9	9	31	38	49
H (Bophuthatswana)	754	87	183	376	789	21	22	20	98	98
J (Bophuthatswana)	918	815	1,309	1,187	2,505	10	11	12	63	62
D (Ciskei)	666	780	995	1,216	1,549	30	35	35	67	85
D (Transkei)	427	413	110	173	383	4	7	8	13	15
E (Transkei)	332	343	164	247	322	2	2	2	3	6
G (Venda)	583	437	155	306	760	1	2	4	17	17

Notes: * Does not include homelands. ** GGP per capita rounds off to zero.

Source: South Africa: An Inter-regional Profile, Development Bank of Southern Africa, 1991.

Table 1: Indicators of Regional Structure and Performance, 1970-1990

(Continued from previous page)

Development Region	Informal Sector Participation Rate (Percent) 1980	1989	Hospital Beds Per 1000 Population 1985	1989	Doctors Per 1000 Population 1985	1989	Educational Level (Percent Secondary or Above) 1980	1989
A	16.1	11.2	4.8	5.7	1.4	1.3	39.2	44.7
B	22.7	26.6	3.6	3.8	0.3	0.3	20.6	21.0
C	16.9	14.2	3.4	3.6	0.4	0.4	20.6	26.3
D	39.3	33.8	4.0	4.1	0.2	0.4	20.5	24.6
E	37.1	31.8	3.9	4.0	0.4	0.5	17.3	28.7
F	18.9	14.8	3.3	2.8	0.2	0.3	17.7	26.3
G	49.1	45.2	2.7	2.6	0.1	0.1	11.2	20.4
H	12.1	10.2	4.3	4.0	1.0	0.9	39.0	46.3
J	19.7	21.9	3.7	4.6	0.3	0.3	21.7	28.2
Average	25.8	21.9	3.9	4.0	0.6	0.6	20.6	26.9
Republic of South Africa*								
A (All)	16.1	11.2	4.8	5.7	1.4	1.3	39.2	44.7
B (RSA/Cape)	13.5	13.8	4.4	4.5	0.4	0.4	23.8	25.9
C (OFS)	13.2	10.5	3.5	3.7	0.6	0.5	20.9	26.9
D (RSA/Cape)	21.0	14.2	5.2	6.0	0.4	0.7	29.5	36.3
E (Natal)	15.0	10.1	7.5	8.7	1.3	1.3	26.4	50.3
F (Transvaal)	12.8	6.5	3.3	3.1	0.3	0.3	19.4	29.5
G (Transvaal)	4.9	2.2	4.3	3.8	0.7	0.7	18.4	29.1
H (Transvaal)	9.4	6.7	4.8	4.6	1.1	1.1	41.9	49.7
J (RSA/Transvaal)	10.3	11.0	4.2	5.4	0.4	0.4	23.6	27.8
"Self-Governing Homelands"								
C (QwaQwa)	63.5	48.9	1.7	2.8	0.0	0.1	15.1	22.4
E (KwaZulu)	48.0	40.9	2.2	2.0	0.1	0.1	13.2	20.8
F (KaNgwane)	55.2	44.1	2.4	1.8	0.0	0.1	10.4	18.1
G (Gazankulu)	68.1	63.1	3.0	3.1	0.1	0.1	8.4	13.6
G (Lebowa)	57.2	53.7	2.2	2.1	0.0	0.0	10.3	20.3
H (KwaNdebele)	61.7	51.6	1.8	na	0.0	0.0	8.6	15.6
"Independent Homelands"								
B (Bophuthatswana)	61.6	65.5	1.7	2.2	0.0	0.0	11.7	10.3
C (Bophuthatswana)	45.8	48.3	5.7	5.7	0.1	0.2	23.4	23.5
H (Bophuthatswana)	35.8	39.7	0.6	0.7	0.0	0.1	20.7	29.3
J (Bophuthatswana)	40.7	41.6	2.8	3.5	0.1	0.1	18.7	28.9
D (Ciskei)	44.0	44.4	4.0	4.2	0.1	0.4	18.6	19.5
D (Transkei)	63.3	58.3	2.8	2.2	0.1	0.1	11.9	15.0
E (Transkei)	64.8	66.0	2.6	2.1	0.1	0.1	11.3	13.5
G (Venda)	72.5	51.3	3.2	2.8	0.1	0.1	9.2	22.1

Notes: * Does not include homelands. "na" indicates data not available.

Source: South Africa: An Inter-regional Profile, Development Bank of Southern Africa, 1991.

Table 1: Indicators of Regional Structure and Performance, 1970-1990

(Continued from previous page)

Development Region	Population Growth Rate (Percent Per Annum)			Percent Female (Ages 15-64 Only)		Dependency Ratio		Economically Active Population (Percent)		Participation Rate (Percent)	
	1970-80	1980-85	1985-90	1980	1989	1980	1989	1980	1989	1980	1989
A	2.3	2.9	2.8	48	48	1.5	1.3	39.5	43.4	63.6	67.5
B	2.3	1.7	1.8	50	51	2.2	2.4	31.6	29.5	58.1	54.7
C	2.1	2.8	2.3	45	44	1.7	1.6	36.4	38.4	64.3	66.9
D	2.7	2.0	2.0	57	57	3.4	3.1	22.8	24.2	43.3	47.3
E	3.6	1.9	1.9	55	55	3.2	2.8	23.6	26.4	45.7	49.4
F	2.6	2.4	2.7	42	44	1.7	1.6	37.5	38.3	64.0	66.3
G	4.2	3.6	3.3	60	61	5.0	4.8	16.6	17.3	35.7	38.0
H	3.3	3.4	3.1	46	42	1.2	1.1	44.7	47.4	67.8	70.8
J	2.5	2.5	2.2	43	45	1.7	1.9	37.4	35.0	63.2	60.5
Average	3.1	2.6	2.5	50	50	2.2	2.0	31.4	33.5	55.6	58.7
Republic of South Africa*											
A (All)	2.3	2.9	2.8	48	48	1.5	1.3	39.5	43.4	63.6	67.5
B (RSA/Cape)	1.4	0.8	1.1	46	47	1.6	1.6	39.2	38.2	66.8	65.9
C (OFS)	1.4	2.5	2.0	43	42	1.6	1.4	39.1	41.6	67.9	70.6
D (RSA/Cape)	1.2	1.7	1.8	51	49	1.9	1.6	34.3	38.3	58.8	64.7
E (Natal)	1.3	0.6	1.1	48	48	1.7	1.3	37.7	44.3	64.5	68.4
F (Transvaal)	1.3	0.9	1.3	38	40	1.3	1.2	42.6	45.9	70.0	47.7
G (Transvaal)	0.5	-0.7	0.0	46	44	1.4	1.1	41.5	47.5	73.4	79.8
H (Transvaal)	2.9	3.2	3.0	44	41	1.1	0.9	48.0	51.5	70.5	74.2
J (RSA/Transvaal)	1.1	1.8	1.8	43	39	1.1	1.3	46.5	43.7	73.3	71.4
"Self-Governing Homelands"											
C (QwaQwa)	20.3	6.9	5.7	61	60	7.4	5.1	11.9	16.4	25.4	36.1
E (KwaZulu)	5.3	2.9	2.5	56	58	4.5	3.9	18.2	20.5	37.3	42.0
F (KaNgwane)	12.3	7.9	6.5	57	58	5.4	4.2	15.7	19.4	32.1	39.8
G (Gazankulu)	5.9	4.2	3.6	65	66	9.7	8.6	9.4	10.4	21.7	24.3
G (Lebowa)	5.4	4.5	3.9	63	64	6.6	6.3	13.1	13.8	29.6	31.5
H (KwaNdebele)	17.3	13.6	8.2	60	59	7.2	5.6	12.1	15.1	27.2	34.4
"Independent Homelands"											
B (Bophuthatswana)	5.2	3.8	3.3	67	62	8.0	8.2	11.1	10.9	25.8	24.0
C (Bophuthatswana)	4.3	0.3	1.2	59	55	4.1	3.6	19.8	22.8	36.9	38.4
H (Bophuthatswana)	5.5	2.1	1.9	58	54	3.1	3.1	24.3	24.6	45.6	44.0
J (Bophuthatswana)	5.2	3.7	2.9	54	55	3.4	3.4	22.5	22.6	43.3	42.5
D (Ciskei)	6.2	1.9	1.7	55	58	3.9	4.0	20.5	19.9	40.4	39.3
D (Transkei)	3.0	2.4	2.4	66	67	7.6	7.3	11.6	12.0	24.7	27.7
E (Transkei)	3.8	1.0	1.1	66	66	8.1	8.4	11.0	10.6	23.6	22.8
G (Venda)	3.4	3.8	3.4	68	66	10.6	5.6	8.6	15.2	18.0	32.7

Notes: * Does not include homelands. ** GGP per capita rounds off to zero.

Source: South Africa: An Inter-regional Profile, Development Bank of Southern Africa, 1991.

Table 2: Inter-regional Inequality, 1970-1990

Regional Grouping, Variable Value, & Inequality Measure	Personal Income Per Capita (1985 Prices)		GGP per capita (1985 Prices)			Urbanization Rate (Percent)			Functional Urbanization Rate (Percent)	
	1980	1985	1970	1980	1989	1970	1980	1989	1980	1989
Development Regions (n=9)										
Average value	2513	2580	3531	3586	3285	47	46	49	62	65
Maximum value	4937	4941	6706	6860	5934	81	82	84	98	98
Minimum value	754	765	1499	786	863	8	8	9	30	31
Coefficient of variation	0.4486	0.4421	0.6057	0.4640	0.4549	0.4856	0.5072	0.4691	0.3000	0.2800
Ratio of max. to min.	6.5	6.5	4.5	8.8	6.9	10.1	10.3	9.3	3.3	3.2
All Regions (n=23)										
Average value	2513	2580	3531	3576	3285	47	46	49	62	65
Maximum value	5135	5128	7344	7785	8177	87	90	92	98	92
Minimum value	332	87	0	86	164	1	2	2	3	6
Coefficient of variation	0.5737	0.5936	0.6667	0.6783	0.7101	1.0169	0.9200	0.8636	0.5212	0.4758
Ratio of max. to min.	15.4	58.9	nc	90.5	49.9	87.0	45.0	46.0	32.7	15.3
RSA less Homelands (n=9)										
Average value	3237	3418	4784	4987	4887	55	55	63	67	72
Maximum value	5135	5128	7344	7785	8177	87	90	92	98	93
Minimum value	2420	2418	2932	3500	2968	21	22	34	29	38
Coefficient of variation	0.2844	0.2693	0.2944	0.2792	0.3480	0.3843	0.4120	0.3138	0.3199	0.2618
Ratio of max. to min.	2.1	2.1	2.5	2.2	2.8	4.1	4.1	2.7	3.4	2.4
RSA with Homelands (n=15)										
Average value	2027	2081	2889	3022	2716	37	37	39	48	50
Maximum value	5135	5128	7344	7785	8177	87	90	92	98	93
Minimum value	340	385	0	86	164	2	3	4	24	25
Coefficient of variation	0.7072	0.7107	0.9352	0.8256	0.8075	0.8373	0.7548	0.7190	0.3941	0.3364
Ratio of max. to min.	15.1	13.3	nc	90.5	49.7	43.5	30.0	23.0	4.1	3.7
TBVC (n=8)										
Average value	607	484	433	539	963	11	12	15	42	45
Maximum value	918	815	1309	1216	2505	30	35	35	98	98
Minimum value	332	87	110	173	322	2	2	2	3	6
Coefficient of variation	0.3075	0.5035	1.0552	0.7736	0.7680	0.9592	0.8977	0.7943	0.7773	0.7538
Ratio of max. to min.	2.8	9.4	11.9	7.0	7.8	15.0	17.5	17.5	32.7	16.3
TBVC & Homelands (n=14)										
Average value	587	513	387	455	793	9	12	14	49	47
Maximum value	918	815	1309	1216	2505	30	35	35	98	98
Minimum value	332	87	0	86	164	1	2	2	3	6
Coefficient of variation	0.3380	0.4027	1.1111	0.7853	0.7886	0.9408	0.7743	0.7395	0.6531	0.5844
Ratio of max. to min.	2.8	9.4	nc	14.1	15.2	30.0	17.5	17.5	32.7	16.3
RSA versus Homelands										
Avg. RSA (No Homelands)	3237	3418	4784	4987	4887	55.0	55.0	63.0	67.0	72.0
Avg. TBVC	607	484	433	539	963	10.5	12.4	15.4	41.5	45.3
Avg. All Homelands	587	513	387	455	793	8.6	11.9	13.6	49.3	47.3
Ratio of RSA to TBVC	5.3	7.1	11.0	9.3	5.1	5.2	4.4	4.1	1.6	1.6
Ratio of RSA to Homelands	5.5	6.7	12.4	11.0	6.2	6.4	4.6	4.6	1.4	1.5

Note: "nc" denotes "not calculable" (e.g. division by zero).

Source: Calculated from Table 1.

Table 2: Inter-regional Inequality, 1970-1990

(Continued from previous page)

Regional Grouping, Variable Value, & Inequality Measure	Population Growth Rate (Annual Percent) 1970-80	1980-85	1985-90	Percent Female (Ages 15-64 Only) 1980	1989	Dependency Ratio 1980	1989	Economically Active Population (Percent) 1980	1989
Development Regions (n=9)									
Average value	3.1	2.6	2.5	49.6	49.7	2.2	2.0	31.4	33.5
Maximum value	4.2	3.6	3.3	60.0	61.0	5.0	4.8	44.7	47.4
Minimum value	2.1	1.7	1.8	42.0	42.0	1.2	1.1	16.6	17.3
Coefficient of variation	0.2474	0.2557	0.2204	0.1296	0.1351	0.4884	0.4966	0.2878	0.2916
Ratio of max. to min.	2.0	2.1	1.8	1.4	1.5	4.2	4.4	2.7	2.7
All Regions (n=23)									
Average value	5.1	3.2	2.7	56.8	54.2	3.3	3.0	25.1	27.3
Maximum value	20.3	13.6	8.2	68.0	67.0	10.6	8.6	48.0	51.5
Minimum value	0.5	-0.7	0.0	38.0	39.0	1.1	0.9	8.6	10.4
Coefficient of variation	1.0003	0.9592	0.6937	0.1659	0.1695	0.9160	0.8677	0.5482	0.5220
Ratio of max. to min.	40.6	nc	nc	1.8	1.7	9.6	9.6	5.6	5.0
RSA less Homelands (n=9)									
Average value	1.5	1.5	1.7	50.1	44.2	1.5	1.3	40.9	43.8
Maximum value	2.9	3.2	3.0	68.0	49.0	1.9	1.6	48.0	51.5
Minimum value	0.5	-0.7	0.0	38.0	39.0	1.1	0.9	34.3	38.2
Coefficient of variation	0.4719	0.8204	0.5553	0.2230	0.0874	0.1836	0.1720	0.1047	0.0969
Ratio of max. to min.	5.8	nc	nc	1.8	1.3	1.7	1.8	1.4	1.3
RSA with Homelands (n=15)									
Average value	5.3	3.6	3.0	54.2	50.9	3.6	3.0	29.9	32.7
Maximum value	20.3	13.6	8.2	71.0	66.0	9.7	8.6	48.0	51.5
Minimum value	0.5	-0.7	0.0	38.0	39.0	1.1	0.9	9.4	10.4
Coefficient of variation	1.1799	1.0081	0.7458	0.1868	0.1797	0.8105	0.7999	0.4830	0.4491
Ratio of max. to min.	40.6	nc	nc	1.9	1.7	8.8	9.6	5.1	5.0
TBVC (n=8)									
Average value	4.6	2.4	2.2	61.6	60.4	6.1	5.5	16.2	17.3
Maximum value	6.2	3.8	3.4	68.0	67.0	10.6	8.4	24.3	24.6
Minimum value	3.0	0.3	1.1	54.0	54.0	3.1	3.1	8.6	10.6
Coefficient of variation	0.2453	0.5585	0.4040	0.0930	0.0916	0.4605	0.4101	0.3830	0.3357
Ratio of max. to min.	2.1	12.7	3.1	1.3	1.2	3.4	2.7	2.8	2.3
TBVC & Homelands (n=14)									
Average value	7.4	4.2	3.5	61.1	60.6	6.6	5.8	15.0	16.7
Maximum value	20.3	13.6	8.2	68.0	67.0	10.6	8.6	24.3	24.6
Minimum value	3.0	0.3	1.1	54.0	54.0	3.1	3.1	8.6	10.4
Coefficient of variation	0.7261	0.8062	0.5991	0.0780	0.0754	0.3609	0.3353	0.3430	0.2930
Ratio of max. to min.	6.8	45.3	7.5	1.3	1.2	3.4	2.8	2.8	2.4
RSA versus Homelands									
Avg. RSA (No Homelands)	1.5	1.5	1.7	50.1	44.2	1.5	1.3	40.9	43.8
Avg. TBVC	4.6	2.4	2.2	61.6	60.4	6.1	5.5	16.2	17.3
Avg. All Homelands	7.4	4.2	3.5	61.1	60.6	6.6	5.8	15.0	16.7
Ratio of RSA to TBVC	0.3	0.6	0.7	0.8	0.7	0.2	0.2	2.5	2.5
Ratio of RSA to Homelands	0.2	0.4	0.5	0.8	0.7	0.2	0.2	2.7	2.6

Note: "nc" denotes "not calculable" (e.g. division by zero).

Source: Calculated from Table 1.

Table 2: Inter-regional Inequality, 1970-1990

(Continued from previous page)

Regional Grouping, Variable Value, & Inequality Measure	Participation Rate (Percent) 1980	1989	Informal Sector Participation Rate (Percent) 1980	1989	Hospital Beds Per 1000 Population 1985	1989	Doctors Per 1000 Population 1985	1989	Educational Level 1980	1989
Development Regions (n=9)										
Average value	55.6	58.7	25.8	21.9	3.9	4.0	0.6	0.6	20.6	26.9
Maximum value	67.8	70.8	49.1	45.2	4.8	5.7	1.4	1.3	39.2	46.3
Minimum value	35.7	38.0	12.1	10.2	2.7	2.6	0.1	0.1	11.2	20.4
Coefficient of variation	0.2054	0.1937	0.4963	0.5141	0.1620	0.2355	0.9050	0.7416	0.3894	0.2934
Ratio of max. to min.	1.9	1.9	4.1	4.4	1.8	2.2	14.0	13.0	3.5	2.3
All Regions (n=23)										
Average value	45.2	47.4	39.1	34.9	3.4	3.5	0.3	0.4	24.3	32.2
Maximum value	73.4	79.8	72.5	66.0	7.5	8.7	1.4	1.3	41.9	50.3
Minimum value	18.0	22.8	4.9	2.2	0.6	0.0	0.0	0.0	8.4	10.3
Coefficient of variation	0.4361	0.3884	0.5954	0.6309	0.4566	0.5544	1.3236	1.1341	0.3775	0.3397
Ratio of max. to min.	4.1	3.5	14.8	30.0	12.5	nc	nc	nc	5.0	4.9
RSA less Homelands (n=9)										
Average value	67.6	67.8	12.9	9.6	4.7	5.1	0.7	0.7	27.0	35.6
Maximum value	73.4	79.8	21.0	14.2	7.5	8.7	1.4	1.3	41.9	50.3
Minimum value	58.8	47.7	4.9	2.2	3.3	3.1	0.3	0.3	18.4	25.9
Coefficient of variation	0.0709	0.1302	0.3504	0.3996	0.2624	0.3314	0.5814	0.5293	0.3118	0.2829
Ratio of max. to min.	1.2	1.7	4.3	6.5	2.3	2.8	4.7	4.3	2.3	1.9
RSA with Homelands (n=15)										
Average value	52.1	54.6	24.0	25.9	3.7	3.8	0.5	0.5	20.6	28.7
Maximum value	73.4	79.8	68.0	63.1	7.5	8.7	1.4	1.3	41.9	50.3
Minimum value	21.7	24.8	4.9	2.2	1.7	0.0	0.0	0.0	8.4	13.6
Coefficient of variation	0.3884	0.3371	0.7651	0.8266	0.4270	0.5540	1.0597	0.9631	0.5065	0.4078
Ratio of max. to min.	3.4	3.2	13.9	28.7	4.4	nc	nc	nc	5.0	3.7
TBVC (n=8)										
Average value	32.3	33.9	53.6	51.9	2.9	2.9	0.1	0.1	15.7	20.3
Maximum value	45.6	44.0	72.5	66.0	5.7	5.7	0.1	0.4	23.4	29.3
Minimum value	18.0	22.8	35.8	39.7	0.6	0.7	0.0	0.0	9.2	10.3
Coefficient of variation	0.3237	0.2457	0.2522	0.1994	0.5165	0.5226	0.6172	0.8638	0.3360	0.3459
Ratio of max. to min.	2.5	1.9	2.0	1.7	9.5	8.1	nc	nc	2.6	2.9
TBVC & Homelands (n=14)										
Average value	30.8	34.3	55.9	51.2	2.6	2.5	0.1	0.1	13.9	19.2
Maximum value	45.6	44.0	72.5	66.0	5.7	5.7	0.1	0.4	23.4	29.3
Minimum value	18.0	22.8	35.8	39.7	0.6	0.0	0.0	0.0	8.4	10.3
Coefficient of variation	0.2777	0.2107	0.2001	0.1765	0.4585	0.5559	0.8987	0.9308	0.3489	0.2928
Ratio of max. to min.	2.5	1.9	2.0	1.7	9.5	nc	nc	nc	2.8	2.9
RSA versus Homelands										
Avg. RSA (No Homelands)	67.6	67.8	12.9	9.6	4.7	5.1	0.7	0.7	27.0	35.6
Avg. TBVC	32.3	33.9	53.6	51.9	2.9	2.9	0.1	0.1	15.7	20.3
Avg. All Homelands	30.8	34.3	55.9	51.2	2.6	2.5	0.1	0.1	13.9	19.2
Ratio of RSA to TBVC	2.1	2.0	0.2	0.2	1.6	1.7	9.7	5.4	1.7	1.8
Ratio of RSA to Homelands	2.2	2.0	0.2	0.2	1.8	2.0	12.8	6.9	1.9	1.8

Note: "nc" denotes "not calculable" (e.g. division by zero).

Source: Calculated from Table 1.

Table 3: ANOVA for Homelands Compared to Non-Homeland Regions

Variable	Year	Sum of Squares			Variance		F Ratio	Significance Level*	White Region Premium
		Among Groups	Residual	Total	Among Groups	Residual			
Personal Income Per Capita (1985 Prices)	1980	38,486,865	7,295,683	45,782,548	38,486,865	347,413	110.78	++	2674.80
	1985	44,543,517	7,215,526	51,759,042	44,543,517	343,596	129.64	++	2948.09
GGP Per Capita (1985 Prices)	1970	83,670,657	34,571,127	118,241,784	83,670,657	1,646,244	50.83	++	3696.55
	1980	112,505,921	17,173,299	129,679,220	112,505,921	817,776	137.58	++	4416.02
	1989	91,814,215	28,220,834	120,035,049	91,814,215	1,343,849	68.32	++	4036.34
Urbanization Rate	1970	1.192	0.445	1.637	1.192	0.021	56.28	++	0.48
	1980	1.027	0.525	1.552	1.027	0.025	41.07	++	0.45
	1989	1.341	0.446	1.787	1.341	0.021	63.12	++	0.52
Functional Urbanization Rate	1980	0.181	1.720	1.900	0.181	0.082	2.21	ns	0.19
	1989	0.344	1.279	1.623	0.344	0.061	5.64	+	0.26
Population Growth Rate	1970-80	189	376	565	189	18	10.57	++	-5.88
	1980-85	40	163	202	40	8	5.13	+	-2.69
	1985-90	18	62	80	18	3	5.95	+	-1.79
Percent Female	1980	658	1,294	1,952	658	62	10.68	++	-10.96
	1989	1,464	391	1,855	1,464	19	78.65	++	-16.35
Dependency Ratio	1980	133	74	207	133	4	37.98	++	-5.11
	1989	98	50	148	98	2	40.97	++	-4.53
Economically Active Population	1980	3,688	490	4,179	3,688	23	157.95	++	25.95
	1989	4,021	457	4,478	4,021	22	184.96	++	27.09
Participation Rate	1980	7,425	1,137	8,562	7,425	54	137.15	++	36.82
	1989	6,153	1,302	7,455	6,153	62	99.25	++	33.51
Informal Sector Participation Rate	1980	4,755	15,054	19,809	4,755	717	6.63	+	-29.46
	1989	9,509	1,180	10,688	9,509	56	169.23	++	-41.66
Hospital Beds Per 1000 Population	1985	23	31	54	23	1	15.63	++	2.05
	1989	35	48	83	35	2	15.52	++	2.54
Doctors Per 1000 Population	1985	2.5	1.5	4.0	2.5	0.1	35.31	++	0.67
	1989	2.2	1.4	3.6	2.2	0.1	34.07	++	0.64
Educational Level (Secondary or Above)	1980	972	873	1,845	972	42	23.38	++	13.11
	1989	1,417	1,222	2,639	1,417	58	24.34	++	16.34

* Note: Significance at the 1% level is indicated by ++; significance at the 5% level is indicated by by +; F ratios that are not significant are indicated by "ns."
Source: Calculated from Table 1.

Table 4: Sectoral Structure of GGP and Economically Active Population

Development Region	Agriculture, Hunting, Forestry & Fishing		Mining & Quarrying		Manufacturing		Electricity, Gas & Water		Construction		Wholesale & Retail Trade, Catering & Accomodation		Transport, Storage & Communications		Finance, Insurance Real Estate & Business Services		Community, Social & Personal Services		Service Charges	Not Classifiable
	% GGP	% Pop.*	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop	% GGP	% Pop
A	8.6	13.6	1.0	1.6	22.6	20.9	2.8	0.9	2.8	7.7	16.7	12.6	10.4	6.3	19.8	4.7	19.4	24.9	4.2	6.9
B	11.8	26.2	21.9	13.4	6.3	4.1	2.8	1.1	1.5	6.3	14.8	9.8	12.8	6.1	12.6	1.5	17.4	21.7	2.0	9.9
C	13.6	23.6	28.7	22.9	6.6	4.8	1.3	0.4	2.8	4.3	11.3	9.4	7.3	3.7	12.2	1.5	18.2	24.4	1.9	5.1
D	8.5	17.3	0.1	2.1	24.2	15.9	2.8	0.5	3.5	5.0	12.7	11.0	11.7	5.5	13.5	2.2	25.3	24.9	2.4	15.6
E	6.3	16.9	2.1	3.2	33.0	19.1	1.8	0.6	3.2	4.5	13.0	11.6	11.7	5.5	12.5	2.6	18.8	21.7	2.4	14.3
F	8.4	26.7	18.5	15.4	29.2	10.0	23.9	3.1	2.0	10.8	4.6	8.5	2.8	3.3	4.0	1.0	7.1	15.4	0.6	5.9
G	11.1	31.6	11.2	10.6	10.7	5.2	1.5	0.4	5.8	4.8	10.8	10.1	5.5	2.3	9.9	1.0	35.0	21.2	1.4	12.9
H	1.1	3.6	10.0	9.4	28.6	23.5	2.6	0.9	3.5	4.6	15.8	13.2	8.1	5.0	16.4	5.0	17.5	25.1	3.8	9.6
J	5.8	19.9	58.1	36.1	6.9	3.9	1.1	0.3	1.9	3.2	6.5	7.8	2.0	2.0	6.8	1.1	11.8	17.9	0.8	7.8
Average	5.6	13.2	12.0	8.6	24.6	16.0	4.3	1.0	3.1	6.7	13.2	10.7	8.3	4.8	13.8	3.5	17.8	22.4	2.8	13.0
Republic of South Africa**																				
A (All)	8.6	13.6	1.0	1.6	22.6	20.9	2.8	0.9	2.8	7.7	16.7	12.6	10.4	6.3	19.8	4.7	19.4	24.9	4.2	6.9
B (RSA/Cape)	11.9	25.7	21.0	9.2	5.8	4.4	2.9	1.1	1.4	5.9	15.4	9.6	13.3	6.3	12.8	1.8	17.6	24.6	2.1	10.7
C (OFS)	14.0	19.6	29.9	23.9	6.3	4.8	1.4	0.6	2.3	5.1	11.6	8.7	7.4	3.7	12.1	1.7	17.0	22.9	2.0	8.9
D (RSA/Cape)	8.3	13.1	0.2	0.4	27.1	17.0	1.8	0.6	2.5	6.6	13.4	10.7	13.7	6.0	15.8	2.8	20.3	24.7	3.2	17.9
E (Natal)	5.1	18.5	2.5	2.9	34.4	19.1	1.9	0.8	3.0	5.2	14.2	11.5	12.8	5.9	13.5	4.4	15.4	21.6	2.8	10.0
F (Transvaal)	8.4	27.5	18.6	16.8	29.6	10.6	24.3	4.4	1.8	6.5	4.7	7.5	2.8	3.4	4.0	1.5	6.4	15.2	0.6	6.7
G (Transvaal)	14.0	43.7	18.6	12.7	11.6	3.9	2.1	0.9	3.1	7.0	14.4	7.4	6.5	2.6	13.5	2.2	18.1	16.6	2.0	3.1
H (Transvaal)	1.1	3.3	10.2	8.6	28.5	22.1	2.6	1.1	3.4	6.3	15.9	12.0	8.1	5.4	16.5	5.9	17.4	23.1	3.9	12.2
J (RSA/Transvaal)	6.4	20.6	56.3	31.8	7.9	4.4	1.3	0.4	1.6	3.7	7.5	7.9	1.9	2.3	7.3	1.6	10.7	20.3	1.1	7.2
"Self-Governing Homelands"																				
C (QwaQwa)	2.1	2.8	0.0	2.8	14.8	16.7	0.0	0.6	18.4	13.9	1.6	11.1	1.8	2.8	14.1	0.8	47.9	25.0	0.7	21.1
E (KwaZulu)	14.1	9.0	0.0	1.4	27.2	18.9	0.2	0.7	5.1	7.5	2.1	9.5	4.9	5.2	6.4	1.2	40.2	19.9	0.2	26.7
F (KaNgwane)	6.7	11.1	9.3	4.9	8.2	9.9	0.0	1.2	12.1	8.6	1.3	14.8	2.3	5.6	8.2	0.6	51.9	19.8	0.0	22.2
G (Gazankulu)	13.0	15.4	1.2	5.8	12.8	7.2	0.0	0.7	10.1	8.2	4.3	11.6	5.0	2.7	4.9	0.7	49.3	27.0	0.6	20.8
G (Lebowa)	4.2	13.1	3.2	3.3	9.1	6.6	0.3	0.8	8.1	9.8	5.8	9.8	4.7	2.6	5.0	1.3	59.8	31.1	0.3	21.3
H (KwaNdebele)	3.9	2.3	0.0	1.2	14.1	4.7	0.0	0.9	17.1	23.3	14.4	11.6	1.0	4.7	4.3	0.5	45.1	23.3	0.0	25.6
"Independent Homelands"																				
B (Bophuthatswana)	11.1	20.6	36.9	8.8	13.6	3.8	0.5	0.3	4.2	4.7	6.1	8.8	4.7	2.6	8.4	0.6	14.5	32.4	0.0	18.8
C (Bophuthatswana)	7.9	7.1	0.0	2.1	14.6	10.7	0.7	0.7	7.6	14.3	13.1	14.3	10.0	7.1	9.0	0.7	37.2	42.9	0.0	1.4
H (Bophuthatswana)	2.6	2.3	0.0	0.6	37.2	20.2	0.9	0.5	6.6	8.7	10.8	12.1	9.8	5.2	15.1	1.5	17.0	28.9	0.0	19.7
J (Bophuthatswana)	3.9	8.0	63.3	35.3	3.9	6.0	0.3	0.3	2.8	6.0	3.6	8.7	2.1	2.7	5.1	0.7	15.1	21.3	0.0	10.7
D (Ciskei)	10.4	2.3	0.0	0.6	10.6	5.9	9.0	0.1	6.0	1.2	14.9	2.2	3.2	0.7	6.4	0.3	39.4	6.5	0.0	2.1
D (Transkei)	6.7	26.7	0.0	8.1	22.1	7.0	0.9	0.2	8.7	6.7	3.6	7.6	8.1	2.4	4.7	1.4	45.1	21.9	0.0	18.1
E (Transkei)	15.0	41.2	0.1	9.2	4.0	3.9	5.3	0.2	3.6	3.4	21.5	5.9	2.7	1.3	3.8	0.8	44.1	17.6	0.0	16.0
G (Venda)	9.0	13.4	1.3	1.3	6.7	4.5	2.7	0.6	9.6	10.4	9.8	7.5	2.6	3.9	6.8	1.5	52.8	25.4	1.4	29.9

Notes: *GGP data are for 1989 and population data for 1990. **Does not include homelands.

Source: South Africa: An Inter-regional Profile, Development Bank of Southern Africa, 1991; and Labor and Employment in South Africa: A Regional Profile, 1980-1990, Development Bank of Southern Africa, 1991.

Regional Grouping, Variable Value, & Inequality Measure	Agriculture, Hunting, Forestry & Fishing		Mining & Quarrying		Manufacturing		Electricity, Gas & Water		Construction		Wholesale & Retail Trade, Catering & Accomodation		Transport, Storage & Communications		Finance, Insurance Real Estate & Business Services		Community, Social & Personal Services	
	% GGP	% Pop.*	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop.	% GGP	% Pop	% GGP	% Pop.
Development Regions (n=9)																		
Average value	6.92	16.70	10.65	9.11	23.19	15.60	3.30	0.80	3.36	5.23	12.88	11.25	8.81	4.68	13 17	2.85	20 21	22 81
Maximum value	13.60	31.55	58.10	36.09	33.00	23.54	23.90	3.06	5.80	10.77	16.70	13.18	12.80	6.27	19 80	5 03	35 00	25 14
Minimum value	1.10	3.63	0.10	1.55	6.30	3.89	1.10	0.30	1.50	3.18	4.60	7.83	2.00	2.04	4 00	0 95	7 10	15 35
Coefficient of variation	0.54	0.50	1.72	1.23	0.47	0.51	2.21	1.07	0.38	0.44	0.32	0.16	0 45	0.34	0 36	0 55	0 39	0 15
Ratio of max. to min.	5.45	3.96	1.42	1.51	7.23	3.85	1.72	2.06	1.30	1.17	1.45	1.34	1.50	1.77	1 73	1.10	1 64	1 42
All Regions (n=23)																		
Average value	8.01	13.89	9.04	7.70	21.24	14.09	2.65	0.88	4.71	6.93	10.59	10.22	7.23	4.40	11.12	2 78	27 23	22 24
Maximum value	15.00	43.67	63.30	35.33	37.20	22.12	24.30	4.36	18.40	23.26	21.50	14.81	13.70	7.14	19 80	5 90	59 80	42 86
Minimum value	1.10	2.31	0.00	0.44	3.90	3.82	0.00	0.15	1.40	1.17	1.30	2.20	1.00	0.73	3 80	0 29	6 40	6 46
Coefficient of variation	0.52	0.83	2.05	1.28	0.48	0.46	1.94	0.95	1.01	0.65	0.55	0.28	0.55	0.40	0 43	0 52	0 61	0 31
Ratio of max. to min.	13.64	18.89	nc**	80.21	9.54	5.78	nc	29.66	13.14	19.80	16.54	6.73	13.70	9.73	5 21	20 10	9 34	6 63
RSA less Homelands (n=9)																		
Average value	8.64	20.61	17.59	11.93	19.31	11.75	4.57	1.19	2.43	6.19	12.64	9.79	8.54	4.55	12 81	2 97	15 81	21 35
Maximum value	14.00	43.67	56.30	31.78	34.40	22.12	24.30	4.36	3.40	9.44	16.70	12.78	13.70	6.25	19 80	5 90	20 30	24 67
Minimum value	1.10	3.33	0.20	0.44	5.80	3.93	1.30	0.37	1.40	3.74	4.70	7.42	1.90	2.34	4 00	1 51	6 40	15 24
Coefficient of variation	0.49	0.55	1.01	0.89	0.59	0.65	1.63	1.02	0.29	0.25	0.32	0.21	0.51	0.34	0 37	0 55	0 28	0 16
Ratio of max. to min.	12.73	13.13	281.50	72.13	5.93	5.63	18.69	11.65	2.43	2.52	3.55	1.72	7.21	2.68	4.95	3 92	3 17	1 62
RSA with Homelands (n=15)																		
Average value	8.12	15.95	11.47	8.44	17.33	11.30	2.77	1.04	6.19	8.47	9.55	10.44	6.44	4.30	10.55	2.12	29 10	22 55
Maximum value	14.10	43.67	56.30	31.78	34.40	22.12	24.30	4.36	18.40	23.26	16.70	14.81	13.70	6.25	19.80	5.90	59 80	31.15
Minimum value	1.10	2.33	0.00	0.44	5.80	3.93	0.00	0.37	1.40	3.74	1.30	7.42	1 00	2.34	4 00	0 47	6 40	15 24
Coefficient of variation	0.55	0.68	1.37	1.10	0.57	0.60	2.18	0.91	0.92	0.56	0.61	0.20	0.68	0.34	0 48	0 77	0 61	0 18
Ratio of max. to min.	12.82	18.78	nc	72.13	5.93	5.63	nc	11.65	13.14	6.22	12.85	2.00	13.70	2.68	4.95	12 69	9 34	2 04
TBVC (n=8)																		
Average value	8.33	15.21	12.70	8.27	14.09	7.74	2.54	0.36	6.14	6.91	10.43	8.39	5.40	3.24	7.41	0 94	33 15	24 60
Maximum value	15.00	41.18	63.30	35.33	37.20	20.23	9.00	0.71	9 60	14.29	21.50	14.29	10 00	7.14	15 10	1 50	52 80	42 86
Minimum value	2.60	2.31	0.00	0.58	3.90	3.82	0.30	0.15	2.80	1.17	3.60	2.20	2.10	0.73	3 80	0 29	14 50	6 46
Coefficient of variation	0.48	0.89	1.90	1.40	0.79	0.71	1.22	0.58	0.40	0.60	0.59	0.44	0.62	0.65	0 48	0.50	0 46	0 44
Ratio of max. to min.	5.77	17.81	nc	61.13	9.54	5.29	30.00	4.86	3.43	12.16	5.97	6.49	4.76	9.73	3 97	5 12	3 64	6 63
TBVC & Homelands (n=14)																		
Average value	7.90	12.53	8.24	6.10	14.21	8.98	1.49	0.56	8.57	9.04	8.06	9.68	4.49	3.53	7.30	0 91	39 96	24 49
Maximum value	15.00	41.18	63.30	35.33	37.20	20.23	9.00	1.23	18.40	23.26	21.50	14.81	10.00	7.14	15.10	1.50	59 80	42 86
Minimum value	2.10	2.31	0.00	0.58	3.90	3.82	0.00	0.15	2.80	1.17	1.30	2.20	1.00	0.73	3 80	0 29	14 50	6 46
Coefficient of variation	0.55	0.88	2.26	1.47	0 65	0.63	1.75	0.57	0.55	0.60	0.76	0.34	0.65	0 51	0 48	0 45	0 36	0 34
Ratio of max. to min.	7.14	17.81	nc	61.13	9.54	5.29	nc	8.41	6.57	19.80	16.54	6.73	10.00	9.73	3.97	5 12	4 12	6 63
RSA versus Homelands																		
Avg. RSA (No Homelands)	8.64	20.61	17.59	11.93	19.31	11.75	4.57	1.19	2.43	6.19	12.64	9.79	8.54	4.55	12.81	2 97	15 81	21 35
Avg. TBVC	8.33	15.21	12.70	8.27	14.09	7.74	2.54	0.36	6.14	6.91	10.43	8.39	5.40	3.24	7 41	0 94	33 15	24 60
Avg. All Homelands	7.90	12.53	8.24	6.10	14.21	8.98	1.49	0.56	8.57	9.04	8.06	9.68	4.49	3.53	7 30	0 91	39 96	24 49
Ratio of RSA to TBVC	1.04	1.36	1.38	1.44	1.37	1.52	1.80	3.30	0.40	0.90	1.21	1.17	1.58	1.41	1.73	3.15	0 48	0 87
Ratio of RSA to Homelands	1.09	1.64	2.14	1.95	1.36	1.31	3.07	2.14	0.28	0.69	1.57	1.01	1.90	1.29	1.75	3.28	0 40	0 87

Notes: *GGP data are for 1989 and population data for 1990. ** "nc" denotes "not calculable" (e.g. division by zero).

Source: Calculated from Table 4.

Table 6: GGP Per Employed, 1990 (Rands)

Development Region	Agriculture, Hunting, Forestry & Fishing	Mining & Quarrying	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail Trade, Catering & Accomodation	Transport Storage & Communications	Finance, Insurance Real Estate & Business Services	Community, Social & Personal Services	Total
A	24.6	24.1	27.2	72.0	9.5	30.5	46.3	57.2	16.7	26.5
B	11.7	41.3	21.4	43.3	5.5	23.2	34.6	69.6	8.8	18.8
C	19.8	24.0	20.7	41.3	11.2	21.3	33.0	76.4	11.1	20.0
D	14.8	1.1	24.4	88.3	12.4	20.9	40.6	59.2	14.3	20.6
E	11.4	16.3	31.6	47.6	12.5	21.9	39.5	46.4	13.4	22.1
F	18.1	46.2	93.6	217.1	13.2	18.3	27.4	63.5	12.8	41.7
G	8.3	19.1	20.6	24.3	10.9	12.6	23.4	54.6	14.3	14.8
H	14.9	37.4	34.7	67.4	19.4	35.0	41.5	44.7	16.9	29.8
J	13.7	50.7	35.9	83.0	14.9	19.7	20.9	78.5	12.1	29.6
Average value	15.2	28.9	34.5	76.0	12.2	22.6	34.1	61.1	13.4	24.9
Maximum value	24.6	50.7	93.6	217.1	19.4	35.0	46.3	78.5	16.9	41.7
Minimum value	8.3	1.1	20.6	24.3	5.5	12.6	20.9	44.7	8.8	14.8
Coefficient of variation	0.3229	0.5564	0.6660	0.7490	0.3103	0.2925	0.2556	0.1970	0.1919	0.3237
Ratio of max. to min.	3.0	44.8	4.5	8.9	3.5	2.8	2.2	1.8	1.9	2.8

Source: Development Bank of Southern Africa, unpublished data (for GGP); and Labor and Employment in South Africa: A Regional Profile, 1980-1990, Development Bank of Southern Africa, 1991

Table 7: Land Availability and Use, 1989

Development Region	Hectares Per Capita	Percent Arable	Arable Land Per Capita (Hectares)	Value Per Hectare
A	7.40	6.5	0.48	967
B	25.66	3.4	0.88	239
C	4.88	32.6	1.59	306
D	3.24	4.0	0.13	614
E	1.28	12.4	0.16	856
F	3.91	21.9	0.86	534
G	2.80	14.2	0.40	352
H	0.36	23.0	0.08	559
J	3.54	30.6	1.08	262
Republic of South Africa*				
A (All)	7.40	6.5	0.48	967
B (RSA/Cape)	35.15	2.8	0.98	286
C (OFS)	5.52	32.9	1.82	308
D (RSA/Cape)	6.15	2.6	0.16	735
E (Natal)	2.14	15.1	0.32	1095
F (Transvaal)	5.20	21.8	1.14	560
G (Transvaal)	16.76	14.0	2.35	417
H (Transvaal)	0.33	25.3	0.08	592
J (RSA/Transvaal)	4.49	36.7	1.65	282
"Self-Governing Homelands"				
C (QwaQwa)	0.38	18.3	0.07	130
E (KwaZulu)	0.74	10.0	0.07	422
F (KaNgwane)	0.70	23.3	0.16	76
G (Gazankulu)	1.08	13.8	0.15	372
G (Lebowa)	0.85	15.9	0.14	135
H (KwaNdebele)	0.56	16.3	0.09	618
"Independent Homelands"				
B (Bophuthatswana)	5.36	12.4	0.66	89
C (Bophuthatswana)	1.88	12.4	0.24	83
H (Bophuthatswana)	0.50	12.2	0.06	85
J (Bophuthatswana)	2.18	12.4	0.27	89
D (Ciskei)	1.01	8.2	0.08	176
D (Transkei)	1.30	8.8	0.11	576
E (Transkei)	1.59	8.8	0.14	584
G (Venda)	1.30	11.8	0.15	318

* Note: Does not include homelands.

Source: Calculated from Development Bank of Southern Africa, unpublished data.

Table 8: Inter-regional Inequality in Land Availability and Use, 1989

Regional Grouping, Variable Value, & Inequality Measure	Hectares Per Capita	Percent Arable	Arable Land Per Capita (Hectares)	Value Per Hectare
Development Regions (n=9)				
Average value	5.90	16.5	0.63	521
Maximum value	25.66	32.6	1.59	967
Minimum value	0.36	3.4	0.08	239
Coefficient of variation	1.3027	0.6701	0.8135	0.4998
Ratio of max. to min.	72.1	9.6	19.5	4.1
All Regions (n=23)				
Average value	4.46	14.9	0.49	391
Maximum value	35.15	36.7	2.35	1095
Minimum value	0.33	2.6	0.06	76
Coefficient of variation	1.7115	0.5711	1.3098	0.7359
Ratio of max. to min.	106.5	14.1	38.2	14.3
RSA less Homelands (n=9)				
Average value	9.24	17.5	1.00	582
Maximum value	35.15	36.7	2.35	1095
Minimum value	0.33	2.6	0.08	282
Coefficient of variation	1.1630	0.7169	0.8074	0.5132
Ratio of max. to min.	106.5	14.1	28.2	3.9
RSA with Homelands (n=15)				
Average value	5.83	17.0	0.64	466
Maximum value	35.15	36.7	2.35	1095
Minimum value	0.33	2.6	0.07	76
Coefficient of variation	0.9959	0.5639	0.7583	0.5119
Ratio of max. to min.	106.5	14.1	34.3	14.3
TBVC (n=8)				
Average value	1.89	10.9	0.22	250
Maximum value	5.36	12.4	0.66	584
Minimum value	0.50	8.2	0.06	83
Coefficient of variation	0.7905	0.1750	0.9063	0.8744
Ratio of max. to min.	10.7	1.5	10.8	7.0
TBVC & Homelands (n=14)				
Average value	1.39	13.2	0.17	268
Maximum value	5.36	23.3	0.66	618
Minimum value	0.38	8.2	0.06	76
Coefficient of variation	0.9074	0.3149	0.8996	0.7791
Ratio of max. to min.	14.3	2.8	10.8	8.1
RSA versus Homelands				
Avg. RSA (No Homelands)	9.24	17.5	1.00	582
Avg. TBVC	1.89	10.9	0.22	250
Avg. All Homelands	1.39	13.2	0.17	268
Ratio of RSA to TBVC	4.9	1.6	4.6	2.3
Ratio of RSA to Homelands	6.7	1.3	5.8	2.2

Source: Calculated from Development Bank of Southern Africa, unpublished data.

Table 9: Agricultural Land Use, 1989

Development Region	Percent of Land by Type and Usage					
	Farm Land	Potentially Arable	Grazing Land	Nature Conservancy	Forestry	Other
A	86.0	6.5	78.6	12.1	0.9	1.9
B	82.9	3.4	79.4	5.1	0.0	12.0
C	92.8	32.6	60.2	1.9	0.0	5.3
D	89.1	4.0	85.1	3.8	3.8	7.1
E	69.0	12.4	56.6	12.6	16.4	18.4
F	49.6	21.9	27.7	30.2	7.9	20.2
G	87.1	14.2	72.9	9.7	1.5	3.2
H	57.7	23.0	34.7	7.9	0.0	34.4
J	87.2	30.6	56.6	8.9	0.0	3.9
Average	81.9	14.6	67.3	9.0	2.8	9.1
Republic of South Africa*						
A (All)	86.0	6.5	78.6	12.1	0.9	1.9
B (RSA/Cape)	82.5	2.8	79.7	4.7	0.0	12.8
C (OFS)	92.8	32.9	59.9	1.9	0.0	5.3
D (RSA/Cape)	91.8	2.6	88.5	4.4	0.7	3.8
E (Natal)	73.6	15.1	42.2	23.5	16.2	2.9
F (Transvaal)	56.6	21.8	26.8	31.1	8.0	12.3
G (Transvaal)	66.4	14.0	70.2	12.4	1.7	21.2
H (Transvaal)	50.2	25.3	24.9	9.4	0.1	40.4
J (RSA/Transvaal)	87.3	36.7	50.6	8.0	0.0	4.7
"Self-Governing Homelands"						
C (QwaQwa)	91.5	18.3	41.2	0.0	0.0	8.5
E (KwaZulu)	88.8	10.0	75.7	2.1	11.3	9.1
F (KaNgwane)	73.5	23.3	44.3	13.2	5.9	13.3
G (Gazankulu)	87.9	13.8	76.2	9.7	0.0	2.4
G (Lebowa)	94.2	15.9	79.2	1.6	1.1	4.2
H (KwaNdebele)	84.6	16.3	58.0	2.3	0.0	13.1
"Independent Homelands"						
B (Bophuthatswana)	98.5	12.4	75.8	0.0	0.0	1.5
C (Bophuthatswana)	98.5	12.4	86.1	0.0	0.0	1.5
H (Bophuthatswana)	98.2	12.2	84.1	0.0	0.0	1.8
J (Bophuthatswana)	98.2	12.4	74.3	0.0	0.0	1.8
D (Ciskei)	98.2	8.2	85.0	0.0	5.0	1.8
D (Transkei)	95.9	8.8	69.3	2.3	17.8	1.8
E (Transkei)	95.9	8.8	60.4	2.3	26.7	1.8
G (Venda)	94.6	11.8	82.8	2.9	1.5	2.5

*Note: Does not include homelands.

Source: Development Bank of Southern Africa, unpublished data.

Table 10: Structure of Commercial Agriculture, 1991

Variable & Type of Agriculture	RSA	Development Region A	B	C	D	E	F	G	H
Percent of Farms Producing									
Field crops	25.51	9.26	19.06	39.77	1.59	33.16	38.03	15.55	33.96
Horticulture	13.05	33.73	8.50	1.42	9.98	12.25	8.27	19.57	19.32
Animal products	52.09	50.55	67.59	52.46	82.39	40.30	41.73	52.40	34.26
Forestry	1.31	0.59	0.00	0.00	0.32	5.44	4.58	2.31	0.00
Mixed farming	7.05	5.87	4.84	6.35	5.24	8.34	7.39	10.17	12.45
Total	100.00	100.00	100.00	100.00	100.02	100.00	100.00	100.00	100.00
Percent of Land Producing									
Field crops	14.39	4.94	4.22	38.01	0.26	21.38	31.60	12.42	60.30
Horticulture	4.63	8.94	2.05	1.09	3.19	2.79	5.80	10.38	8.22
Animal products	76.02	82.94	90.90	57.42	92.64	61.04	43.05	71.64	25.66
Forestry	1.48	0.64	0.00	0.00	0.12	7.98	15.08	1.64	0.00
Mixed farming	3.47	2.53	2.83	3.49	3.79	6.80	4.47	3.91	5.81
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Average Farm Size (ha.)									
Field crops	724	1,075	682	986	261	415	636	749	579
Horticulture	473	534	743	789	504	147	537	497	139
Animal products	1,946	3,308	4,146	1,129	1,761	976	790	1,282	244
Forestry	1,513	2,184	0	0	570	945	2,522	666	0
Mixed farming	657	870	1,802	567	1,141	495	464	360	152
Total	1,333	2,016	3,083	1,031	1,576	644	766	938	326
Gross Income Per Farm (R)									
Field crops	327,058	418,592	201,985	299,020	93,529	504,328	381,168	248,051	401,445
Horticulture	414,454	478,526	189,266	331,801	380,477	198,566	750,557	453,414	367,863
Animal products	213,389	270,038	112,059	159,896	169,065	476,560	234,655	135,077	569,392
Forestry	494,002	646,032	0	0	158,667	509,422	448,970	531,248	0
Mixed farming	78,317	129,550	48,006	100,085	*	62,196	258,138	*	29,296
Total	263,917	348,092	132,662	213,873	180,176	416,855	344,606	210,438	406,164
Gross Income Per Hectare (R)									
Field crops	452	389	296	303	358	1,214	599	331	694
Horticulture	876	895	255	420	755	1,353	1,398	912	2,652
Animal products	110	82	27	142	96	489	297	105	2,332
Forestry	326	296	0	0	278	539	178	797	0
Mixed farming	119	149	27	177	*	126	557	*	*
Total	198	173	43	207	114	647	450	224	1,246
Debt to Income Ratio									
Field crops	0.91	0.77	1.26	0.96	2.75	0.50	0.90	1.56	1.04
Horticulture	0.82	0.81	1.24	0.86	0.51	0.95	1.47	0.48	0.58
Animal products	0.86	0.57	1.40	1.04	1.11	0.98	0.81	0.93	0.29
Forestry	0.32	0.00	0.00	0.00	0.11	0.37	0.42	0.22	0.00
Mixed farming	1.50	0.77	1.47	1.43	*	0.90	1.89	*	*
Total	0.87	0.70	1.34	1.00	1.00	0.75	1.00	0.82	0.62
Employees Per Farm									
Field crops	47.3	407.4	24.1	17.3	8.8	46.5	30.1	25.0	30.5
Horticulture	58.4	85.4	33.3	33.5	31.1	20.9	79.2	45.0	32.0
Animal products	19.6	64.6	6.8	12.3	11.1	20.2	11.2	7.3	11.5
Forestry	98.3	682.5	0.0	0.0	12.1	59.4	45.3	40.8	0.0
Mixed farming	16.8	62.7	8.6	10.4	*	10.5	27.2	*	*
Total	32.8	106.9	12.5	14.5	12.8	30.3	26.8	17.7	21.1
Employees Per Hectare									
Field crops	0.065	0.379	0.035	0.018	0.034	0.112	0.047	0.033	0.053
Horticulture	0.123	0.160	0.045	0.042	0.062	0.142	0.148	0.090	0.231
Animal products	0.010	0.020	0.002	0.011	0.006	0.021	0.014	0.006	0.047
Forestry	0.065	0.312	0.000	0.000	0.021	0.063	0.018	0.061	0.000
Mixed farming	0.026	0.072	0.005	0.018	0.010	0.021	0.059	0.006	0.032
Total	0.025	0.053	0.004	0.014	0.008	0.047	0.035	0.019	0.065

Note: * indicates data sufficiently anomalous to be considered unreliable.
Source: Calculated from Development Bank of Southern Africa, unpublished data.

Table 11: RIDP Costs and Employment

Development Region	All RIDP Firms						PMS Firms Only*			
	Employment	De Facto Labor Supply (1985)	Employment / De Facto Labor Supply (1985)	Investment (Rands)	Investment Per RIDP Job (R)	Monthly Wages (R) (RSA only)	Percent Profitability	Value Added Per Employee (R)	Value Added Per Rand of Incentive	Firms Above Norm (Percent)
A	6,878	1,344,625	0.51	300,791	43,732	515	9.45	31,286	19.31	81
B	3,009	302,863	0.99	67,268	22,356	375	4.40	22,560	29.11	81
C	23,008	908,456	2.53	189,102	8,219	183	2.27	8,878	5.82	63
D	35,160	1,011,871	3.47	1,062,790	30,227	514	5.92	27,261	21.88	69
E	41,875	2,019,017	2.07	740,029	17,672	330	4.07	19,341	15.79	68
F	5,248	674,109	0.78	107,732	20,528	480	5.45	26,447	28.45	67
G	16,270	613,068	2.65	195,775	12,033	242	5.24	10,190	7.08	59
H	6,988	3,546,518	0.20	325,475	46,576	454	9.50	20,738	22.16	66
J	8,095	574,170	1.41	192,800	23,817	441	7.90	14,366	32.90	87
Average RIDP Firms					31,727	332	5.82	20,964	16.72	68
Average All Firms (RSA)					3,687	1,021				

* Note: PMS firms are firms monitored by the Productivity Monitoring System of the National Productivity Insitute. On average, 69% of decentralized firms are registered with the Monitoring System.

Sources: National Productivity Institute, "Extracts from the Productivity Monitoring System Report of May 1990" and Development Bank of Southern Africa, "Report of the Panel of Experts on the Evaluation of the Regional Development Programme as an Element of the Regional Development Policy in Southern Africa," 1989

Table 12: Regions E and F Compared to South Africa

Variable	Year	Development Region									South Africa	Region E / RSA	Region F / RSA
		A	B	C	D	E	F	G	H	J			
Share of Population	1970	0.10	0.04	0.08	0.14	0.23	0.06	0.10	0.21	0.05	1.00	0.23	0.06
	1980	0.09	0.03	0.07	0.13	0.25	0.05	0.11	0.22	0.05	1.00	0.25	0.05
	1985	0.09	0.03	0.07	0.13	0.24	0.05	0.11	0.22	0.05	1.00	0.24	0.05
	1990	0.10	0.03	0.07	0.13	0.23	0.05	0.12	0.23	0.05	1.00	0.23	0.05
Population	1970	8.3	2.7	13.1	19.8	46.4	15.8	17.9	151.3	17.9	17.8	2.61	0.89
Density (Per Hectare)	1980	10.5	3.3	16.3	25.7	66.1	20.5	27.0	209.9	22.9	24.2	2.74	0.85
	1990	13.9	4.0	21.0	31.4	79.8	26.3	37.9	289.8	28.9	31.2	2.56	0.84
Personal Income	1980	4203	2070	2216	1544	1591	2301	734	4593	2237	2515	0.63	0.91
Per Capita (1985 Prices)	1985	4343	1984	2184	1630	1736	2346	725	4558	2167	2581	0.67	0.91
GGP Per	1970	4957	3116	4120	1603	1855	2722	1499	6706	4621	3534	0.52	0.77
Capita (1985 Prices)	1980	5077	2834	3731	1834	2039	4411	786	6860	4119	3579	0.57	1.23
	1989	4479	2156	2983	1825	2072	5934	863	5473	4176	3288	0.63	1.81
GGP Growth Rate	1970-80	2.6	1.3	1.2	4.1	4.6	7.7	-2.3	3.6	1.3	3.2	1.44	2.41
(Percent Per Annum)	1980-89	1.4	-1.3	0.1	2.0	2.1	5.9	4.5	0.7	2.5	1.6	1.31	3.69
Urbanization	1970	79	47	45	37	31	30	80	81	36	47	0.66	0.64
Rate (Percent)	1980	80	44	40	39	32	30	84	82	28	46	0.69	0.65
	1989	84	48	49	41	35	35	90	82	32	59	0.59	0.59
Functional	1980	85	58	63	52	44	54	30	98	63	62	0.71	0.87
Urbanization Rate (Percent)	1989	89	59	64	57	51	56	31	93	65	65	0.79	0.86
Population	1970-80	2.3	2.3	2.1	2.7	3.6	2.6	4.2	3.3	2.5	3.1	1.16	0.84
Growth Rate	1980-85	2.9	1.7	2.8	2.0	1.9	2.4	3.6	3.4	2.5	2.7	0.71	0.90
(Percent Per Annum)	1985-90	2.8	1.8	2.3	2.0	1.9	2.7	3.3	3.1	2.2	2.5	0.75	1.07
Percent Female	1980	48	50	45	57	55	42	60	46	43	51	1.08	0.82
(Ages 15-64 Only)	1989	48	51	44	57	55	44	61	42	45	50	1.09	0.87
Dependency Ratio	1980	1.5	2.2	1.7	3.4	3.2	1.7	5.0	1.2	1.7	2.5	1.27	0.67
	1989	1.3	2.4	1.6	3.1	2.8	1.6	4.8	1.1	1.9	2.3	1.20	0.69
Economically Active	1980	39.5	31.6	36.4	22.8	23.6	37.5	16.6	44.7	37.4	31.6	0.75	1.19
Population (Percent)	1989	43.4	29.5	38.4	24.2	26.4	38.3	17.3	47.4	35.0	33.5	0.79	1.14
Participation	1980	63.6	58.1	64.3	43.3	45.7	64.0	35.7	67.8	63.2	54.5	0.84	1.17
Rate (Percent)	1989	67.5	54.7	66.9	47.3	49.4	66.3	38.0	70.8	60.5	57.3	0.86	1.16
Informal Sector	1980	16.1	22.7	16.9	39.3	37.1	18.9	49.1	12.1	19.7	27.4	1.36	0.69
Participation Rate (Percent)	1989	11.2	26.6	14.2	33.8	31.8	14.8	45.2	10.2	21.9	23.9	1.33	0.62
Hospital Beds	1985	4.8	3.6	3.4	4.0	3.9	3.3	2.7	4.3	3.7	3.9	1.01	0.85
Per 1000 Population	1989	5.7	3.8	3.6	4.1	4.0	2.8	2.6	4.0	4.6	3.9	1.01	0.71
Doctors Per	1985	1.4	0.3	0.4	0.2	0.4	0.2	0.1	1.0	0.3	0.6	0.72	0.36
1000 Population	1989	1.3	0.3	0.4	0.4	0.5	0.3	0.1	0.9	0.3	0.6	0.87	0.52
Educational Level (Percent	1980	39.2	20.6	20.6	20.5	17.3	17.7	11.2	39.0	21.7	24.6	0.70	0.72
Secondary or Above)	1989	44.7	21.0	26.3	24.6	28.7	26.3	20.4	46.3	28.2	32.2	0.89	0.81

Source: Calculated from various tables in South Africa: An Inter-regional Profile, Development Bank of Southern Africa, 1991.

Table 13: Intra-regional Inequality, Region E, 1980-1990

	GGP Per Capita 1990	Percent of 1990 GGP Devoted to:		Urbanization Rate (Percent)			Population Growth Rate (Percent Per Annum)		Percent Black	
		Agriculture	Manufacturing	1980	1985	1990	1980-85	1985-90	1985	1990
All Magisterial Districts (n=74)										
Average value	4,100	7.5	31.4	32.4	33.8	34.8	1.9	1.9	82.3	82.1
Maximum value	33,200	67.3	58.9	100.0	100.0	100.0	9.5	8.0	100.0	100.0
Minimum value	200	0.0	0.0	0.0	0.0	0.0	-9.5	-4.7	10.4	8.7
Coefficient of variation	1.3213	2.6105	0.5609	0.8206	0.8045	0.8158	1.5047	1.1077	0.2712	0.2805
Ratio of max. to min.	166.0	nc	nc	nc	nc	nc	nc	nc	9.6	11.5
Non-Homeland Magisterial Districts (n=38)										
Average value	11,700	6.0	32.8	62.4	66.9	70.8	0.6	1.1	43.3	40.6
Maximum value	33,200	67.3	58.9	100.0	100.0	100.0	9.5	8.0	98.1	98.0
Minimum value	1,600	0.0	0.0	0.0	0.0	0.0	-9.5	-4.7	10.4	8.7
Coefficient of variation	0.5074	3.6247	0.5818	0.4318	0.4084	0.3962	4.4150	1.8189	0.5392	0.5836
Ratio of max. to min.	20.8	nc	nc	nc	nc	nc	nc	nc	9.4	11.3
Homeland Magisterial Districts (n=36)										
Average value	781	16.2	22.0	17.7	18.9	19.4	2.5	2.3	99.8	99.8
Maximum value	2,100	59.8	47.1	100.0	95.2	95.3	8.1	6.9	100.0	100.0
Minimum value	200	0.5	0.0	0.0	0.0	0.0	-1.9	-1.7	98.8	98.8
Coefficient of variation	0.4740	0.9968	0.7081	1.2707	1.1229	1.0644	0.9153	0.8173	0.0024	0.0027
Ratio of max. to min.	10.5	112.0	nc	nc	nc	nc	nc	nc	1.0	1.0
Ratio of Homeland to Non-Homeland Averages	0.07	2.7	0.67	0.3	0.3	0.3	3.9	2.0	2.3	2.5

Note: "nc" denotes "not calculable" (e.g. division by zero).

Sources: 1) A Regional Profile of the South African Population and its Urban and Non-Urban Distribution: 1970-1990, Development Bank of Southern Africa, 1991.

2) Labour and Employment in South Africa, A Regional Profile: 1980-1990, Development Bank of Southern Africa, 1991.

3) Economic and Social Memorandum, Region E: 1991, Development Bank of Southern Africa, 1991.

Table 14: ANOVA within Region E: Homelands compared to Natal

Variable	Variance			Significance	Natal
	Among Groups	Residual	F ratio	Level	Premium
Participation Rate	28430.6	145.4	195.56	++	39.22
Urbanization Rate	14257.9	628.1	22.7	++	27.77
Population Growth Rate	48.8	4.0	12.22	++	-1.62
Economically Active Population	15890.9	84.1	188.99	++	29.32
Unemployment Rate	9994.1	179.3	55.73	++	-23.25
GGP Per Capita	8.28E+08	1.87E+07	44.34	++	669.11
Percent Black	17880.4	296.8	60.24	++	-31.10
Percent Female	4524.5	36.9	122.52	++	-15.64
Dependency Ratio	603.8	8.8	68.71	++	-5.72
Male Absenteeism (Percent)	58189	795.9	73.11	++	56.10
Population Density	2689940	1287683	2.09	ns	-381.46

Table 15: Intra-regional Inequality, Region F, 1980-1990

	Urbanization Rate (Percent)			Population Growth Rate (Percent Per Annum)		Percent Black		Economically Active Population (Percent)			Participation Rate (Percent)			Minimum Involvement in Informal Sector (Pcnt. of Economically Active Population)		
	1980	1985	1990	1980-85	1985-90	1985	1990	1980	1985	1990	1980	1985	1990	1980	1985	1990
All Magisterial Districts (n=23)																
Average value	0.3	0.3	0.4	2.3	2.7	83.4	83.2	37.5	38.2	38.6	64.0	65.8	67.0	22 1	17.9	15 2
Maximum value	0.6	0.7	0.7	12.4	9.4	99.9	99.9	66.8	61.6	64.1	85.4	84.6	88.7	150.3	122 8	119 2
Minimum value	0.1	0.1	0.1	-3.0	-2.5	65.5	62.5	15.6	14.0	14.2	29.3	31.5	32.0	1 2	-11 6	-14 4
Coefficient of variation	0.4842	0.5370	0.5889	1.3191	0.9323	0.1197	0.1317	0.3378	0.3382	0.3456	0.2274	0.2264	0.2367	1.7191	2 0128	2 3884
Ratio of max. to min.	10.3	12.2	13.6	-4.2	-3.7	1.5	1.6	4.3	4.4	4.5	2.9	2.7	2.8	130 0	-10.6	-8 3
Non-Homeland Magisterial Districts (n=20)																
Average value	0.3	0.4	0.5	0.9	1.3	78.1	76.3	42.6	44.6	46.6	70.1	72.7	76.0	13 2	8 7	3 9
Maximum value	0.6	0.7	0.7	3.7	4.5	97.4	97.4	66.8	61.6	64.1	85.4	84.6	88.7	72 2	84 3	80 4
Minimum value	0.1	0.1	0.1	-3.0	-2.5	65.5	62.5	18.5	16.3	16.7	41.9	38.9	39.7	1 2	-11 6	-14 4
Coefficient of variation	0.4164	0.4316	0.4387	1.5983	1.1470	0.1056	0.1214	0.2529	0.2380	0.2328	0.1457	0.1396	0.1429	1.3440	2 2063	4 9327
Ratio of max. to min.	6.5	7.5	9.4	-1.2	-1.8	1.5	1.6	3.6	3.8	3.8	2.0	2.2	2.2	62 4	-7.3	-5 6
Homeland Magisterial Districts (n=3)																
Average value	0.2	0.1	0.1	7.8	6.5	99.6	99.6	15.7	18.5	19.5	32.1	38.6	40.2	125.3	85 8	78 9
Maximum value	0.3	0.2	0.2	12.4	9.4	99.9	99.9	15.9	23.2	25.0	35.1	45.7	48.3	150.3	122 8	119 2
Minimum value	0.1	0.1	0.1	5.4	4.5	99.5	99.5	15.6	14 0	14.2	29 3	31.5	32 0	102 5	59 5	50 7
Coefficient of variation	0.6609	0.5901	0.5283	0.3745	0.3073	0.0016	0.0016	0.0089	0.2200	0.2453	0.0852	0.1676	0.1850	0 1798	0 3409	0 4011
Ratio of max. to min.	5.1	4.2	3.5	2.3	2.1	1.0	1.0	1.0	1.7	1.8	1.2	1.5	1.5	1 5	2.1	2 4
Ratio of Homeland to Non-Homeland Averages	0.5	0.3	0.3	9.0	5.2	1.3	1.3	0.4	0.4	0.4	0.5	0.5	0.5	9 5	9 8	20 1

Sources: 1) A Regional Profile of the South African Population and its Urban and Non-Urban Distribution: 1970-1990, Development Bank of Southern Africa, 1991.
2) Labour and Employment In South Africa, A Regional Profile: 1980-1990, Development Bank of Southern Africa, 1991.
3) Economic and Social Memorandum, Region F: 1989, Development Bank of Southern Africa, 1989.

FIGURE 1: Regional Performance

Former Provinces and Homelands

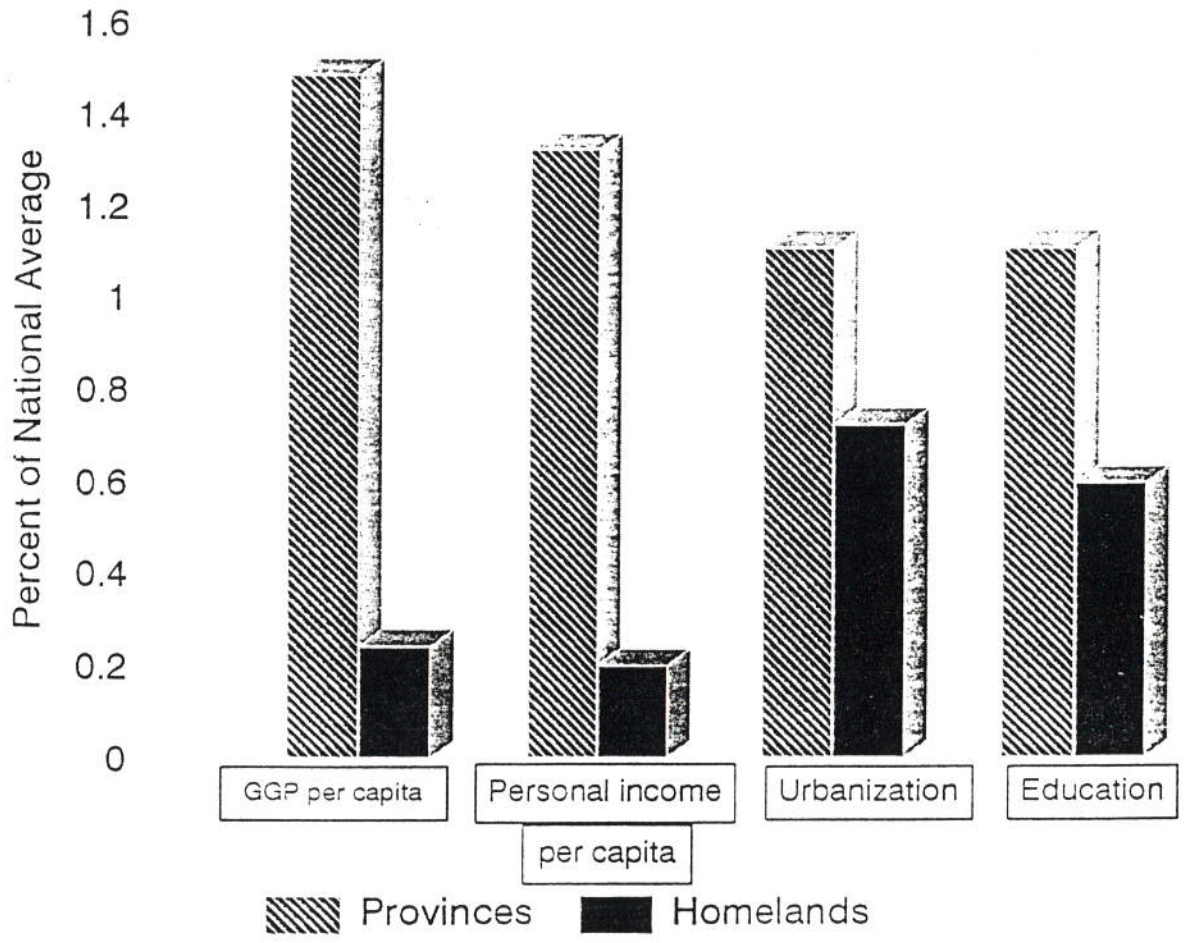


FIGURE 2: Regional Inequality

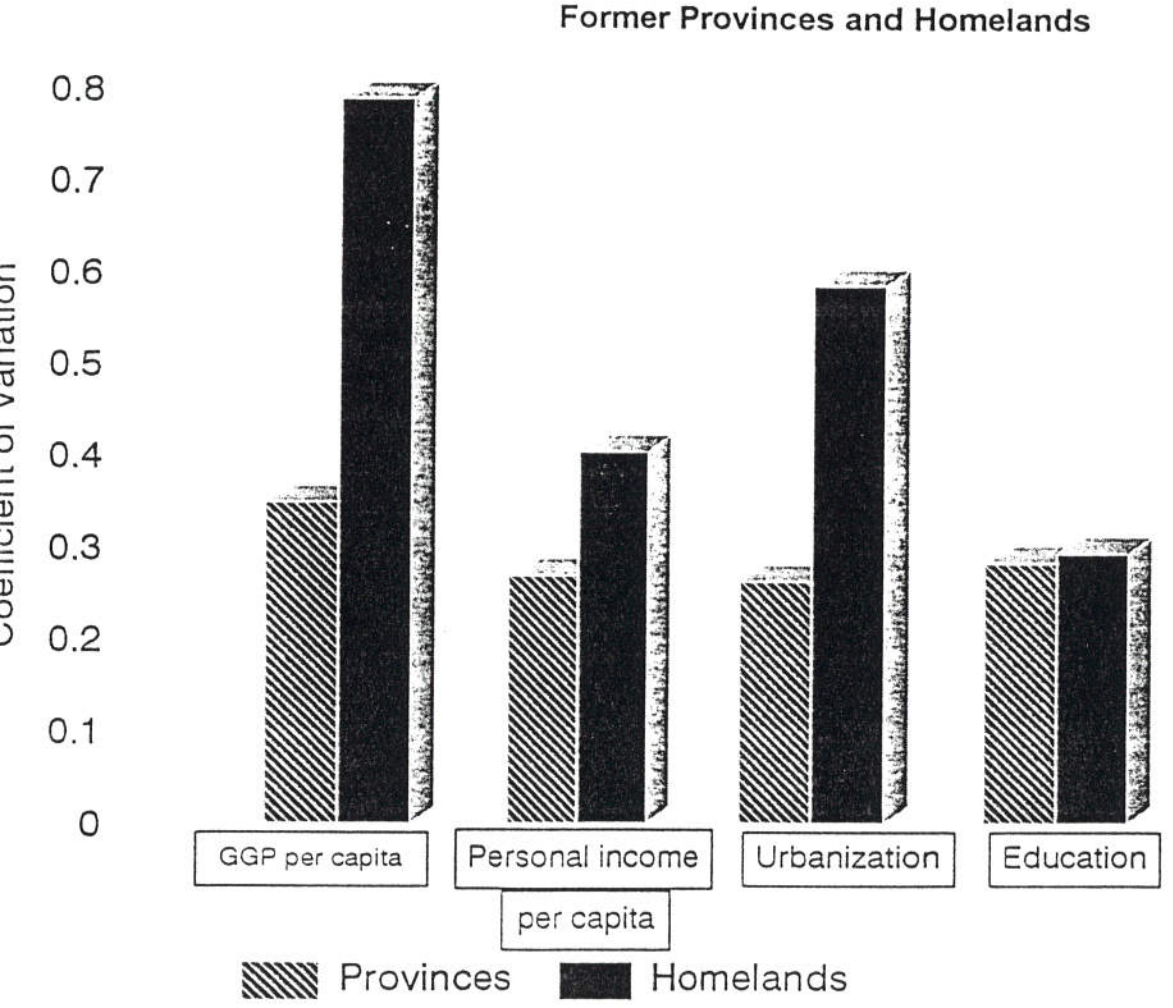


FIGURE 3: Regional Performance

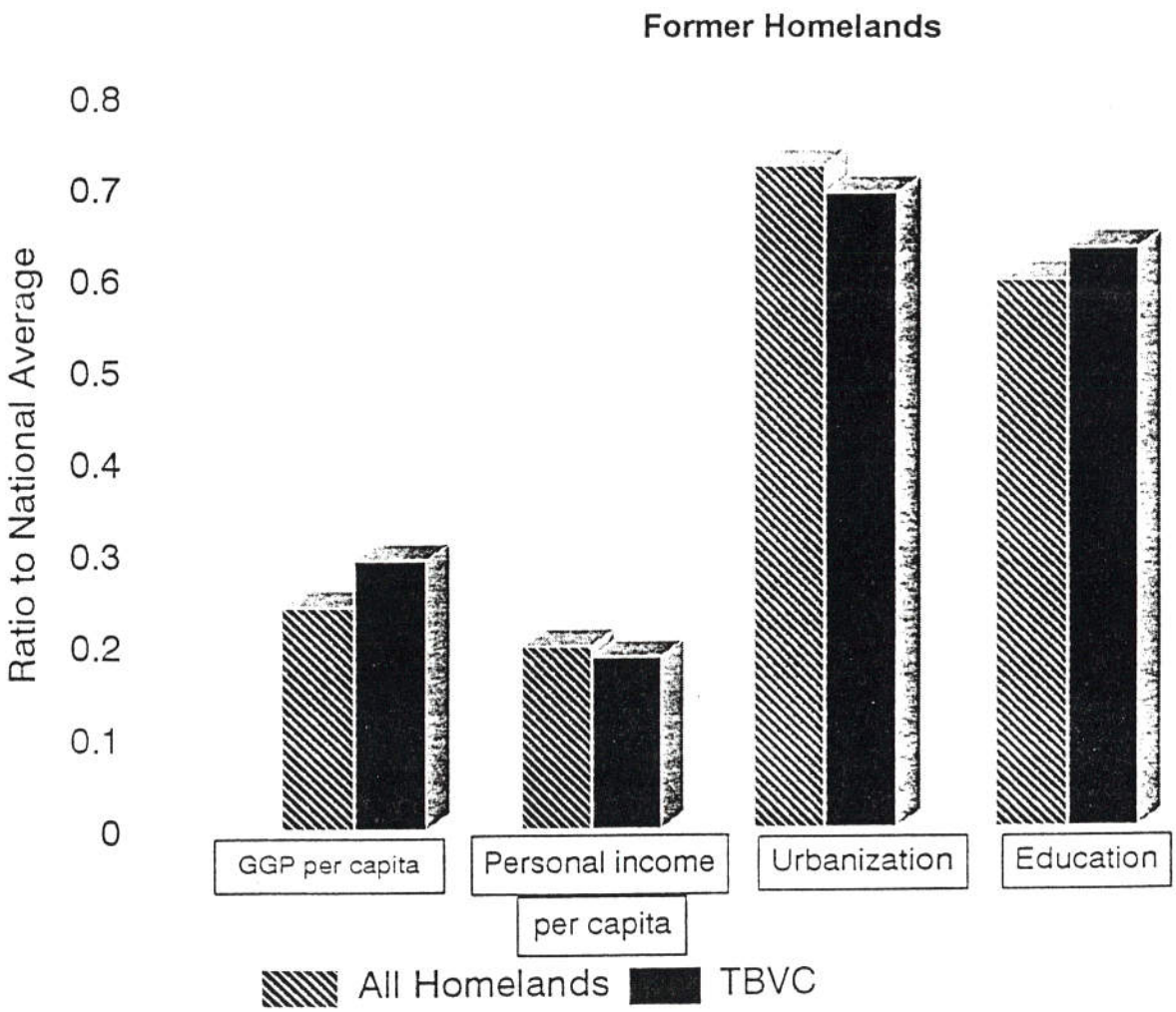


FIGURE 4: Regional Inequality

Former Homelands