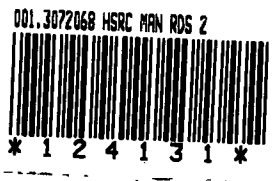
An overview of the sources of labour and employment statistics for regional planning



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An overview of the sources of labour and employment statistics for regional planning

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PREFACE

I would like to thank Professor Jill Nattrass of the Development Studies Unit for her support and many useful criticisms. Thanks also to Mr John Lynch and many other officials from Central Statistical Services and the Department of Manpower who so kindly helped guide me through the maze of South African labour statistics.

I would also like to acknowledge the financial assistance of the Human Sciences Research Council and the Co-operative Scientific Programmes section of the Committee for Scientific and Industrial Research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF DIAGRAMS AND MAPS

SAMEVATTING

Die Suid-Afrikaanse regering het gedurende die afgelope paar jaar die belangrikheid van streekontwikkeling baie sterker as tevore beklemtoon en het onlangs in hierdie verband nadruk gelê op die bevrediging van die basiese behoeftes van die Swart bevolking van Suid-Afrika en op die belangrikheid van 'n werkskeppingstrategie.

Die oogmerk met hierdie verslag is om die inisiatiewe in bogenoemde verband te ontleed. Deel I van die verslag verskaf 'n teoretiese oorsig oor die rol wat werkverskaffing, arbeidsmarkte en die verligting van armoede in ontwikkeling speel. Deel II verskaf 'n ontleding van die datavereistes vir basiese behoeftegebaseerde streeksarbeidbeplanning in Suid-Afrika, met spesiale verwysing na statistieke wat tans beskikbaar is en dié wat nodig sal wees om sodanige beplanning effektief deur te voer.

ABSTRACT

During the past few years the importance of regional development has been stressed by the South African government more than ever before. Within this context the government has recently emphasized the necessity of meeting the basic needs of the Black population of South Africa and the importance of a strategy of employment creation as part of this process.

These initiatives are being analyzed in this report which is divided into two parts. Part One provides a theoretical overview of the role of employment, labour markets and poverty alleviation in development. Part Two analyzes the data requirements for basic needs-oriented regional labour planning in South Africa, looking especially at the statistics currently available and those required for such planning to take place effectively.

INTRODUCTION

In the past couple of years the South African government has been stressing regional development on a hitherto unprecedented scale, and within that context has recently emphasised the fulfilment of the basic needs of the African population of South Africa and the importance of a strategy of employment-creation in this process[1].

It was intended that this report analyse these initiatives. It has been divided into two parts:

i) Part One provides a theoretical overview of the role of employment, labour markets and poverty-alleviation in development; and

ii) Part Two analyses the data requirements for basic needs-oriented regional labour planning in South Africa, looking especially at the statistics currently available and those required for such planning to take place effectively.

Chapter 1 discusses the peculiarities of a basic needs-centred approach to development. It is suggested that elements of basic needs can be compatible with various development strategies from right and left, and the radical critique of using basic needs as basis for long-term change

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1. See, for example, the recent government White Paper on employment-creation (Republic of South Africa, 1984), the National Manpower Commission (1984) report on small businesses and the informal sector, Development South Africa Volume 1 Number 1 (April 1984) on the new Development Bank, the latest industrial decentralisation proposals (du Toit, 1982; Department of Foreign Affairs & Information, 1982; Kleu Committee, 1983), as well as sundry Parliamentary debates and press releases.

is discussed in some detail.

Planning of any kind requires statistics; statistics in turn are theory-laden. Since the labour market (in the broad sense) is the major set of structures channeling workers into jobs and determining the incomes they earn, Chapter 2 discusses theories and interpretations of labour markets, both in conventional developed market-economies and those used to analyse the allocation of labour and employment-related problems in less-developed countries, and the policy implications of each. Chapter 3 discusses the supply of labour, focussing especially on problems of measurement of unemployment, underemployment and their relation to poverty and development planning. Finally, to close off Part One, Chapter 4 deals with some areas of labour market analysis suggested by the preceding debates. These include vacancies and labour market inefficiencies, unemployment, poverty effects of labour market stratification and the 'informal sector' as means of employment-creation.

Having established a theoretical basis for analysing labour markets and labour statistics, Part Two deals with regional labour and employment planning in South Africa. Stress is laid on the strengths and shortcomings of current labour data rather than its usage for regional planning as it was considered, at the time research was begun, that the 'regional development strategy' for which labour statistics are to be supplied had not been specified sufficiently by government to set clear guidelines for research. The Introduction to Part Two provides a brief discussion of the origins of regional planning in South Africa, describes the planned National Development Areas and comments on the role of the Regional Development Advisory Committees, which are to be

the chief agents of regional development.

Chapter 5 is the empirical heart of the report. It comes to grips with South African labour statistics and sources at both technical and theoretical levels, critiquing them in terms of ideological approach, coverage, accuracy and utility. While the Current Population Survey (CPS) is a useful (if flawed) data source (see Chapter 6), the statistics overall are disappointingly poor and selective, particularly in terms of regional planning requirements. This is a function of the lack of interest in labour and poverty-related issues by both capital and state, and the low priorities historically assigned to data on these areas. There is scope for improving labour and employment data sources fairly easily and simply, however; it seems particularly important that financial and manpower resources be channelled into the CPS and that employment-related issues be given greater prominence in other surveys and censuses.

Chapter 6 examines the CPS approach in some detail, based on the results of a survey with a similar methodology carried out in Transkei in 1983. It is argued that the 'Westernised' figures collected by the CPS do not shed much light on the employment problem in the area under analysis. The unemployment indice is particularly problematic in rural areas, and women's economic activities, forms of underemployment and the role of migrant labour are not dealt with at all. As a result, the CPS data is likely to give a distorted picture of the local demand for work and labour resources available for development.

Chapter 7 suggests various possible basic needs-oriented development strategies which can be adopted for regional planning, selecting the most important and discussing their data requirements in depth. The primary requirement is seen to be a simple yet comprehensive unemployment-underemployment-household survey. This should help guide planning and development progress within the region, and serve as basis for more specialised investigations. Another crucial lack of knowledge centres round the informal sector and small businesses.

Finally, the Conclusion observes that better labour and manpower statistics are all very well, but won't be of much use without a fundamental shift in the state's approach to poverty and planning in this country. On the other hand, if the state is serious about fulfilling the basic needs of the mass of the population, its development strategy is certainly not going to be successful unless the kinds of statistical needs described in Chapters 5, 6 and 7 above are fulfilled.

"Everybody's against poverty to some extent, just like everybody's against sin, but to differing degrees"

- Wilfred Beckerman

PART ONE

THEORIES OF LABOUR MARKETS, EMPLOYMENT AND POVERTY

CHAPTER ONE BASIC NEEDS AND DEVELOPMENT

1.1 Introduction

The Basic Needs concept has a longish history, but only emerged in its present form as an effective statement about development and how people function within it at the ILO World Employment Conference in 1976 (ILO, 1976). Its central thrust was a strong stress on the physical well-being of the poor as the ultimate aim of any development strategy. This was to be measured by the meeting of people's needs in the following areas (Radwan & Alfthan, 1978: 198; Hopkins & Scolnik, 1976: 9-18; ILO, 1977: 7):

Private needs: food, shelter, clothing, household equipment and furniture, fuel;

Community services: drinking water, sanitation, public transport and health, educational and cultural facilities;

Participation in decision-making that affects people;

Freely chosen and available employment.

This emphasis evolved out of the problems of developing economies and the poor performance of development economics in the 1950s and 1960s. In those early years there tended to be a strong emphasis on the physical capital and investment aspects of development, with the Harrod-Domar model (economic growth as a function of savings divided by total capital stock) implicitly taken as the central area on which policy had to focus.

It was assumed growth would lead to increasing overall product demand; productivity and wages would rise, product prices would eventually fall, and the benefits of growth would rapidly diffuse ('trickle down') throughout the economy. Growth was thus a kind of performance test of development, usually measured in terms of rising GNP per capita. Governments would have the interests of the majority of the population at heart, and would help to spread the benefits of growth downwards through progressive taxation and the provision of social services.

By the 1970s, however, while less-developed countries (LDCs) had undoubtedly grown on the whole, poverty had often remained constant or increased, income distributions were highly unequal, and an unemployment problem was coming to the fore. Emphasis in development theory began to move from simple 'growth' towards strategies of full employment and income redistribution, with a (rather vaguely theorised) concept of 'development' as improving the quality of life of the whole population. The basic needs approach was a natural extension of this, particularly its focus on the economic position of the very poor.

1.2 Approaches to Basic Needs: from Right to Left

Green claims that "basic human needs rather crosscut standard ideological positions" (1981: 30), being consistent with some Marxist, social democrat and welfare capitalist analyses. In practice, the basic needs elements listed above have been revised and reworked from both right and left, differing ideologies emphasising some elements and leaving others out (see Sandbrook, 1982: 7-17).

1.2.1 CONSERVATIVE VIEWS: THE WORLD BANK AND OTHERS[1]

This is based, one might suggest, on a 'terror of the poor' approach. Piecemeal and minimal domestic economic reforms are considered necessary to improve the physical lot of the poor and mollify political unrest within the existing national and international orders.

The poverty problem is viewed as internal to the community: the poor are poor because their productivity is so low. The necessary and sufficient condition for eliminating poverty is seen as raising the productivity of such labour (see eg Burki & Ul Haq, 1981: 168), thus eliminating the "barriers and constraints" to development within each community, region or country.

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1. Categorisation of the World Bank and ILO (see section 1.2.2 below) into particular ideological groupings in this fashion is inherently problematic, particularly as the World Bank tends to mix radical rhetoric and reactionary practice and the ILO has no unitary theoretical/methodological tendency due to the disparate and decentralised nature of the research done (Gerry, 1977: 26). However, as Gerry argues, there are some de facto centralised decision-making and policy-formulation processes within each organisation, and hence the classifications of the dominant theoretical trends used here.

Basic needs policy is to be aimed at 'target groups'[1] of poor people on which attention, capital and services are to be showered (Lee, 1980: 101). Deprived groups are to be isolated and policy measures aimed at them alone. These could include people who are geographically, linguistically or politically isolated, or unreached groups within households. This is a basic needs critique of those who argue that poverty can be solved simply by raising the incomes of the poor - inaccessible or unreached groups don't benefit.

But further (and perhaps more importantly), as Streeten puts it,

> "The selective approach makes it possible to satisfy the basic needs of the whole population at levels of income per head substantially below those that would be required by a less discriminating strategy of all-round income growth, and therefore sooner" (1981: 337).

In practice, Lee notes, this leads to tightly-defined numerical targets as policy focus and "illegitimate isolation", abstracting the poverty problem from its social context and treating it unrealistically as a technocratic one of supply and delivery of basic goods and services (1981: 113). In this process the employment and participation aspects of basic needs tend to be ignored, thus conveniently reducing the leftist or political thrust in the original basic needs model (Green, 1981: 33).

World Bank ideologues argue that basic needs may also be a growth

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1. Paul Streeten has noted the origins of this phrase: "Military metaphors are congenial to persons who have worked in the World Bank." He suggests such development efforts can often be called 'sorties' into the countryside (speech at the Carnegie Conference, University of Cape Town, 13 April 1984). However, sorties - as per definition - are selective interventions and don't confront the causes of problems, but merely their effects.

strategy in the long run, despite possibly lower short run growth, due to 'beneficial social effects' and a better quality labour force, in other words, higher productivity. Streeten advocates a national basic needs growth path giving priority to selective poor current consumption (eg education and health). For a while, growth in this scenario might fall behind a Stalinist 'forced growth' strategy of low current consumption and very high rates of investment, but when the 'human capital' invested in the youthful members of the current population comes to fruition and they enter the labour force, output and growth should rise beyond levels reached via any other development strategy (see Streeten, 1981: 351; also Bequele & Freedman, 1979: 322-4).

It seems, however, that encouraging the supply side of labour in this fashion could prove mistaken in the long run. This policy recommendation is subject to the same criticism as human capital theory (see section 2.1.2.3), that improving labour quality is all very well, but has no necessary relation to higher incomes or job availability. Less-developed countries could simply end up with unemployed people who are educated rather than otherwise.

The position about 'target populations' and 'human capital' may to an extent be true (these points are also espoused by the ILO), but in the World Bank context serves to rationalise an existing state of affairs rather than act as an agency for change. The Bank tends to co-opt the basic needs jargon and wield it towards a conservative 'global stability' end, backed by large pecuniary resources. It is hoped above all that growth and development will take place in a 'conflict-free' fashion. This approach has been rationalised as perhaps the only pos-

sible effective development strategy:

> "Basic needs policies need not hurt the interests of the rich in the way that redistribution does and may even aid them, such as health measures that eradicate infectious diseases ... palliatives may be the best that can be achieved and ... the alternative is not more radical reform but doing nothing at all" (Streeten, 1984: 8).

This view thus makes only a negligible attempt to change power relations within the economy, particularly those between rich and poor. And an unreformed and probably multinational corporation-dominated modern sector continues 'business as usual'. The rural problem, in particular, is hardly confronted; as Lee argues, an approach which argues selective rural intervention is not likely to change or transform the mutually reinforcing mechanisms creating rural poverty (1980: 102).

..2.2 THE ILO AND THE WORLD EMPLOYMENT PROGRAMME

By contrast to the conservative, piecemeal approach of the Bank, the nternational Labour Organisation stresses that the structure of the economy itself needs to be changed if provision is to be made for the basic needs of the population to be fulfilled in the long run - it dopts what can be called a 'sympathy with the poor' approach.

t is argued that the economies of less-developed countries tend to be ivided into two sectors in a self-reproducing fashion. The modern ector is small and capital-intensive, while the 'traditional' sector is arge, labour-intensive and unproductive. Extreme income inequalities re the key to this model: the wealthy, who own or have jobs in the odern sector, demand capital-intensive luxury products with a high

import component, while the poor in the latter sector require basic, labour-intensive products, but don't have sufficient income to satisfy their needs. Employment growth is limited because the expanding modern sector is strongly labour-saving, and the rest of the economy is growing very slowly.

A more equal income distribution and production structure should lead to a generalised increase in demand for labour-intensive basic products required by lower-income households, and considerable expansion of employment in the traditional sector. This requires breaking the vicious circle of poverty by interventions all along the line (Kitching, 1982b: 82-3; Bequele & Freedman, 1979: 317-320).

Practical approaches include (see Killick, 1980: 374):

a) Factoral priorities, especially labour-intensive production, employment-creation and no more cheapened access to state-subsidised capital. Employment is to be more of a development priority than simple growth:

> "a strategy based on maximising GNP, given the prevailing (economic and social) structure, is very unlikely to lead to a 'desired' level of employment and distribution of income. This would be true even if it were possible to institute and implement fiscal and other policies which would redistribute (maximum) income" (Thorbecke, 1973: 422);

b) Sectoral priorities, concentrating on small-scale agriculture (preferably including land reform), rural development and reduced urban-rural disparities, and the 'informal sector';

c) Improved access by the poor to state resources and services, especially primary education;

d) An appropriate product mix, aimed at higher consumption of labour-

intensive products, especially food, clothing and housing (Baron & Van Ginneken, 1982: 671);

e) Appropriate local, labour-intensive technologies;

f) Within the above context, action on poverty groups, with a stress on a minimum national 'core' of basic needs which can actually be fulfilled in each country.

All this can only take place via mass involvement in the implementation of development strategies, an implicit basis to all the above recommendations. This is of course a 'political' basic need which is rarely thoroughly defined, but the idea appears to be that local people will be involved in projects at the levels of decision-making, implementation, benefits and evaluation (Cohen & Uphoff, 1980: 218-221). Mechanisms for effectively achieving popular participation, however, are rarely analysed (Carr-Hill, 1981: 43).

1.2.3 RADICAL VIEWS

Gerry (1977) and Gauhar (1982) argue for an essentially revolutionary socialist political solution to the problems of Third World poverty and underdevelopment. They claim ILO basic needs and employment-creation efforts are politically reactionary, compound capitalist underdevelopment "and further delay the time when the working poor in underdeveloped countries will have full, productive and democratic participation in the organisation of the labour force for the direct benefit of the labour force" (Gerry, 1977: 31). At no stage, however, is it explained quite how this revolutionary change is to come about, and what - if anything - can be done meanwhile to improve the position of the poor.

A more cogent radical view is that of Sandbrook (1982). His is largely a critique of the ILO approach to development, accepting most of its ideals and goals, but critical of the ways it hopes to implement them. The crux of his position is the political unrealism of ILO reform proposals. His argument is similar to that of Leys about the ILO Report on Kenya (ILO, 1973). Leys notes that while the suggestions of heavy taxes on the rich and incomes freezes to channel money to the poor are very commendable, they implied wealthy Kenyan bureaucrats, better-off traders, teachers and the like who had benefited from the Million Acre scheme, African businessmen and foreign enterprises were all supposed to forego current benefits to no real personal advantage (1977: 258-271),

> "The obvious puzzle presented by these proposals is what incentive the mission thought all these groups - the heart and soul of the alliance of domestic and foreign capital - might possibly have for making such sacrifices" (Leys, 1977: 262, also Lee, 1980: 106).

In fact the mission seems only to suggest that in the future the problem in Kenya of inequality and youthful frustration could become "insoluble" (ILO, 1973: 329) - hardly a convincing argument for the holders of political power in Kenya!

Sandbrook would agree with this criticism as applied to African states which talk of implementing basic needs in their countries; most are simply neo-colonial class dictatorships closely aligned with foreign capital which are simply struggling to keep the masses at bay. But he does not leave things there - his is no simple reproduction of the Gerry 'immiseration will lead to revolution' thesis. He suggests that some basic needs, if implemented, could lead to changes in the power relations between classes in each country (1982: 13-16), and that possible progressive action here should be investigated.

Central to Sandbrook's argument is his concept of 'reform'. Neo-colonial governments facing internal unrest and upholding massive income inequality might be forced to carry out reforms for political reasons. However, although the working classes are small and there is little socialist potential for the time being, processes of change once begun tend to acquire their own momentum, and such governments might gradually be forced from non-structural into structural reform as an alternative to direct repression.

Non-structural reforms would appeal to these governments; they would be keen to "implement selectively those changes that do not alter the relations of power and production" (ibid, 237), for example site-and-service housing schemes and preventative rural health, and the basic needs rhetoric by governments in these cases serves simply as a camouflage for economic repression and inequality[1]. But they might be compelled to implement structural reforms likely to change the relative powers of contending classes in the long run; Sandbrook sees involvement here as the main potential for radical development planners in these countries. Such reforms might include various incomes policies to narrow income differentials, a freeze on high salaries, especially in the government bureaucracy, a progressive agricultural policy (eg land reform and progressive land taxes), less state subsidies to the formal

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1. It is interesting to find that Ul Haq and Burki make a similar point about governments professing basic needs policies but not taking them very seriously; they in fact seem to suggest a basic needs strategy can only work in LDCs where, inter alia, a) there is a reasonably equitable distribution of productive assets, especially land, and b) there exists a degree of local administrative and decision-making decentralisation, with central support. Though it has been argued that basic needs programmes can be implemented without radical changes, they observe that even in such paradigmatic cases as Taiwan and South Korea, the above conditions were fulfilled (1981: 169).

sector and widespread informal sector development (ibid, 234-240).

It should be emphasised, however, that Sandbrook is ultimately cynical of involvement in basic needs development by African states:

> "To implement any such strategy, the state requires a bureaucracy characterised by efficiency, honesty, elan and ideological commitment. This is so because any assault on poverty will necessitate extensive state intervention into economic life" (ibid, 99).

But in fact, neo-colonial/post-colonial bureaucracies are weak, ineffective and without much mass support, and can hardly be seen as powerful agents of grassroots development. He prefers to aim at popular grassroots liberation despite (rather than relying on) state policies, including local participation, the use of alternative technology and strategies of self-reliance. Helping to liberate small communities from material deprivation is an end in itself and can also build up pressures for broader political changes, including even effects on national development strategies (ibid, 240-1). And only this way is the mobilisation of local resources which is at the core of any successful long-run basic needs strategy likely to materialise.

1.3 Employment and Basic Needs in South Africa

A basic needs development strategy would be highly appropriate for South Africa because this country vividly displays all the aspects of a skewed production structure stressed by the ILO. These include massive income disparities and widespread poverty, the coexistence of a very advanced modern sector and backward rural 'sub-subsistence' production, high effective capital-subsidies, escalating unemployment and little mass participation in development.

This report will take for granted the desirability of a basic needs-oriented approach to development, bearing in mind (with the ILO) that it requires some degree of economic restructuring and popular participation to be effective in reaching the poorest strata of the population. In particular, employment at a reasonable remuneration (pecuniary or otherwise) can be regarded as a critical basic need for planning purposes because in a capitalist society like South Africa, the vast majority of people has no alternative means of satisfying their basic needs by their own endeavours other than by work[1]. The provision of work for all who want it is likely to be a precondition for the long-run fulfilment of other basic needs.

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1. Of course, basic needs in the labour sphere are not spanned by the mere provision of jobs and employment - it has been argued that both the quantity and the quality of work-related activities and job-security should be improved (Werneke & Broadfield, 1977: 177), including working conditions, control over work and job satisfaction. Macro-analysis in most of these fields, however, is hardly yet applicable to the majority of workers in South Africa.

"Aye! idleness! the rich folks never fail
To find some reason why the poor deserve
Their miseries!"

- Attributed to TW Beckett.

CHAPTER TWO LABOUR MARKETS AND DEVELOPMENT

At the centre of any program for the alleviation of poverty should be a consideration of labour markets, since it is here that the most important economic decisions of individual workers are made. Gordon (1974: 13-22) has described three approaches to work and labour markets:

i) orthodox theory, dominated by the marginal productivity assumption, and in which human capital theory is currently hegemonic;
ii) segmented labour market theory, which argues that various relatively separate markets for labour may exist with different wage and employment conditions prevailing in each, with no necessary relation to 'marginal productivity'; and
iii) radical theory, which accepts most of what segmented labour market theory has to say, but tends towards a questioning of the capitalist system as a whole, and in which issues of capitalist power and control are central.

2.1 Orthodox Theories of the Labour Market

2.1.1 THE DEMAND FOR LABOUR

This theory is based on the microeconomics of the capitalist firm. Based on various neoclassical assumptions about firm behaviour (see

Koutsoyiannis, 1975: 257; Nattrass, 1982b: 15-16), it is argued that profit-maximising firms will produce where marginal revenue equals marginal cost, ie where the firm's output demand and supply curves intersect. Labour is but one input into the production processes of the firm; it will hire labour until the addition to total revenue earned by the firm as result of hiring one additional worker (ie labour unit) is equal to the price of hiring that worker, where the marginal revenue product equals the marginal wage.

This model can be extended in various ways:

a) By introducing elements of monopoly into the model. If the market is limited but operating costs don't change, employment in the industry will rise the greater the competition and the bigger the market, as a direct trade-off against monopoly profits earned;

b) If labour available is limited and unorganised and wages paid rise as employment rises, once again firms will equate marginal revenue product and marginal wage, except that only the (lower) average wage will be paid to workers. Both wages and total employment will be lower than in the perfectly competitive case;

c) If labour is not homogeneous, the model is not materially affected, as supply and demand vectors for each type of labour demanded can be theorised. The adjustment process here is likely to be slower than in the perfectly competitive case;

d) Capital: labour flexibility may be limited.

At a very general level, then, the short-run factors directly determining the level of employment of the firm are the prevailing wage rate and

the productivity of labour, and at a slightly more removed level, conditions prevailing in the product market, conditions in the labour market and the technology behind the production process (Nattrass, 1982b: 18-21).

2.1.2 THE SUPPLY OF LABOUR AND HUMAN CAPITAL THEORY

2.1.2.1 The Human Capital Approach

Neoclassical economic theory tends to take for granted reasonably flexible short-run demand curves for labour, with some adjustment by firms possible according to relative factor prices. Job characteristics are taken as given and adjustable in the short run - where they are even mentioned. Taking a free and effective labour market for granted (Nasson, 1984: 3), the neoclassical theory of the supply of labour has reached a peak in human capital theory.

Gary Becker (1976, first published 1964) presented human capital as "the process of investing in people" (15): "people spend on themselves in diverse ways, not for the sake of present enjoyments, but for the sake of future pecuniary and nonpecuniary returns" (Blaug, 1976: 829). This approach made possible the economic treatment of the worker as a capital good (Bowles & Gintis, 1975: 74). Skills, like other assets, constitute a claim on future income, and this is the main form of investment in human capital. In fact, as human capital theorists observe, every worker is now a capitalist!

The rational approach to expected future phenomena is said to charac-

terise, et al, health, education, job search, labour migration and so on. The demand for education, for example, will be responsive to variations in the direct and indirect costs of schooling, and to variations in the earnings differentials associated with additional years of schooling. It is presumed information about all these variables is available, and workers will borrow funds to subsidise investment in themselves until the cost of hiring such funds equals the marginal rate of return on their human capital investments.

The theory claims basically to predict incomes from work in terms of past investments in human capital, with benefits paid over the lifetime of the individual:

> "the program adds up to an almost total explanation of the determinants of earnings from employment, predicting declining investments in human-capital formation with increasing age, and hence lifetime earnings profiles that are concave from below" (Blaug, 1976: 832).

After allowing for innate differences of ability and intelligence, the distribution of earnings is claimed to be a function of the distribution of accumulated human capital across the working population; wages in turn will be a function of the marginal productivity of such labour. This is usually substantiated by referring to the many studies showing strong positive correlations between incomes and education in capitalist economies.

2.1.2.2 Some Policy Implications of Human Capital theory

The overall assumption and implication is that - as in the neoclassical textbook model - the market for labour tends to work reasonably well and should be encouraged without disruption by outside forces or 'unneces-

sary' state intervention.

1. To eliminate poverty and low income earners, the state should implement policies to raise the human capital of the population as a whole, particularly that of the poorer sectors of the population. The assumption is, as Hicks (1963: 82) put it, that low-wage labour is "often badly paid, not because it gets less than it is worth, but because it is worth so appallingly little". Increasing the education and training of low-level workers should raise their productivity and incomes, reduce the supply of unskilled workers and thus raise their wages, and increase the relative supply of more highly skilled workers and thus lower their wages. Thus total product would be expected to increase, the income distribution would become more equal, and each individual would be rewarded according to his or her merit (see Thurow, 1980b: 253).

2. Equality of opportunity should be enhanced as much as possible; since innate abilities which ultimately help determine income inequalities are unchangeable, it follows that those inequalities in pay regarded as unacceptable should only be attacked by allowing everybody reasonable access to human capital. Thus the access of disadvantaged individuals and groups to finance for human capital investment should be improved (King, 1980: 236), and workers should be encouraged to make the most realistic assessment of long-term employment prospects possible (Doeringer & Piore, 1980b: 425);

3. For LDC's, an expansionist and interventionist educational policy is likely to raise productivity and incomes and help in reducing income inequality; this tends to be the approach, amongst others, of the World

Bank (Nasson, 1984: 2). Education becomes an ideal, cheap, nonrevolutionary means to modernise society (Ngu, 1982: 170).

2.1.2.3 A Critique of Human Capital Theory

1. Blaug (1976: 837-840) has pointed out that the predictive power of the theory is weakened by its implicit assumption that costless learning is impossible. If learning takes place on the job ('learning-by-doing'), there are no direct costs borne by anybody, and hence this process is not subject to individual choice and evades the human capital income-determination process.

Furthermore, human capital theory suggests that individuals with a given level of schooling choose occupations to equalise present values of lifetime earnings. The predictions of this in terms of the mappings of earnings by levels of education have not been borne out by empirical testing, and the same is the case for the implication that rates of return on investment in formal schooling are identical to returns to post-school investment. Hence Blaug concludes, human capital theory has no empirically testable theory of occupational choice (839).

2. Capital markets for human capital funds are highly underdeveloped, especially in less-developed countries, thus the marginal rate of return on such investments as between workers is likely to differ considerably.

3. Empirical critiques of human capital theory are powerful:

a) The distributions of education and IQ are far more equal than of

income, and even a combination of the former cannot explain the shape of the latter (Thurow, 1980b: 254-5);

b) In almost all countries, the educational distribution has become more equal in the post-war period, while that of income has not; in the USA, Thurow argues it has worsened for white adult males, and black-white differences there have not improved substantially, especially at upper income levels (ibid, 255-6);

c) For the USA, very limited success of the massive training and schooling programmes set up in the 1960s to eliminate poverty and low productivity in the US labour force;

d) The facts of massive unemployment and labour nonutilisation in most market economies in the last 20 years, regardless of education levels;

e) And finally, most studies indicate that the human capital model works better at the upper end of the occupational spectrum.

4. Many researchers have found the relation between education and productivity to be weak (see McNulty, 1980: 195). One critique here is termed the theory of 'screening', by which employers are presumed to be looking for personal characteristics rather than cognitive skills which can be provided by on-the-job training. Jobs are regarded as technologically determined, tend to have stable incomes associated with them, and require 'suitable' people to fill them and be trained further. Education serves to certify the 'trainability' of the worker, and jobs and higher incomes are then distributed on the basis of this certified status (ibid, 195-6). In other words, given uncertainty and inadequate information about the probable future performance of job applicants, education serves as a useful proxy indice for such a measure; others might include age, family situation, race and sex.

The correlation between earnings and human capital is regarded as one between trainability and human capital - "The contribution of education to economic growth, therefore, is simply that of providing a selection device for employers" (Blaug, 1976: 845). This theory does not deny a link between 'credentials' and productivity; the 'demand for credentials' by individuals is likely to be similar to that predicted in human capital theory, via a positive private rate of return to educational investment. But a central prediction of human capital theory - that upgrading can be carried on indefinitely and will be accompanied by increases in labour productivity and wages - is denied; education and income differentials will not change, and the worst jobs at the bottom of the occupational spectrum will again go to the least educated labour.

In other words, it is suggested that education helps at the micro-level but not necessarily at the macro-level (see Nasson, 1984: 7); the social rate of return to education may be much lower than the private rate, especially in less-developed countries (Mazumdar, 1981: 123-6, 362; Ngu, 1982: 160). This implies that in the long run, state expenditure on higher-level education could perhaps be allocated more effectively towards universal primary education (a priority basic need for any sort of participation in a capitalist economy), occupational and industrial education, or job-creation (JASPA, 1982: 206).

5. The marginal productivity problem - regardless of supply conditions, if the concept of the marginal productivity of land, capital, labour or entrepeneurship can be faulted, the neoclassical calculus of the firm is radically weakened (Thurow, 1970: 20-21). Marginalist methodology can be critiqued in various ways:

i) The Cambridge critique, that the capital: labour ratio is not directly linked to the profit: wages ratio, implying marginal cost functions can't exist as they're based on marginal rates of transformation between capital and labour which are unmeasurable. This suggests profits and profit rates are decided "outside the system of production" (Sraffa, 1975: 33), for example in political struggle between capital and labour;

ii) Marginal productivity theory claims to be a theory of distribution, but is riddled with problems: unless each factor of production is paid its exact marginal product at every instant in time, some "subsidiary distribution theory" is necessary to explain the prevailing distribution of income; the same applies to average-product theories of distribution. Market imperfections radically weaken this explanation anyway;

iii) Marginal productivity theory has proved empirically suspect. Many studies (eg Hall & Hitch, 1939; Lester, 1946) have shown firms to use average rather than marginal cost pricing, or other non-marginal methods (Machlup, 1967). These assume market structures aren't very sensitive to change, and that prices and profits are determined both institutionally and by the market.

And to assume marginal productivity, despite real world imperfections, as the most satisfactory basis on which experience can be tested, is incorrect - this is to transform marginal productivity doctrine from theory into theology!

6. The Marxist critique, for example that of Bowles & Gintis (1975: 75-8). According to them, the capitalist firm has both 'pure economic' (technical) dimensions and socio-political dimensions, both of which the

capitalist has to control for production to take place. Production has to be both technically and socially organised, to provide incentive and control mechanisms to extract as much labour from workers at the lowest possible wage, and prevent worker organisation in opposition to capitalist class-power.

In this scheme, education is designed to provide technically (ie human capital) and socially trained workers to the organisation - it trains workers to accept capitalist hierarchical structures such that positive racial, sexual, intellectual or skill attributes train some individuals to control and discipline others, and train others to accept that discipline. A correspondence between education and productivity is accepted, but

> "schools produce 'better' workers primarily through the structural correspondence of the social relations of education with those of capitalist production, rather than through the content of the academic curriculum" (ibid, 77).

Education (and training or experience) is mainly a reflection of capitalist organisation and the requirements of production - ie the need for "habits or predictability and dependability" in workers (Richard Edwards quoted in Blackburn & Mann, 1979: 12). One major empirical study found workers in the labour market investigated used very few skills in manual occupations; an estimated 85% of workers could do 95% of jobs (Blackburn & Mann, 1979: 12, 99-109). Employers in their sample indicated that "co-operation and not ability" was in short supply (13): production required workers who would function well outside direct supervision and be conscientious with expensive machinery (107).

Demand and production factors are seen to dominate the parameters within which human capital operates, such that a technologically and socially defined occupational structure emerges historically with specific job places created and incomes attached to them, defined in terms of product demand, relations to other jobs, technology, and so on. Workers are channeled into these jobs and the accompanying incomes by social and personal forces largely beyond their control. While individuals and families may make some choices about education, job-training and so on, these do not explain the patterns of occupations and incomes to be found in the economy.

The problem is that human capital theory ultimately views poverty, low productivity and low wages as an individual affliction[1], curable by action on those individuals and cooperation on their part. It conceals the fact that "the dice which are so heavily loaded against the poor are not educational" (Nasson, 1984: 8), and what is needed is a more widespread distribution of economic and political power, not simply of human capital. Hence,

> "This framework provides an elegant apology for almost any pattern of oppression or inequality (under capitalism, state socialism or whatever), for it ultimately attributes social or personal ills either to the shortcomings of individuals or the unavoidable technical requisites of production. It provides, in short, a good ideology for the defense of the status quo" (Bowles & Gintis, 1975: 82).

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1. In its more extreme version, human capital theory thus suggests that "people are relatively rich and poor partly by choice" (Mohun, 1980: 116), with the logical implication that "changing the poor's preference structure /will/ aid in the alleviation of poverty and, incidentally, income generation in general /will/ benefit as well" (ibid).

2.1.3 CONCLUSION

The approaches discussed above reason from impeccable neoclassical foundations but are subject to the critique that they do not help understand the 'real world': more realistic approaches may be needed. South African planners, however, seem to use these neoclassical models as the best basis for planning even when the economic results are not those predicted by the textbooks.

Education, for example, tends to be relied upon to improve productivity, encourage job-creating economic growth and equalise the racial distribution of income. While the expansion of African secondary-school education may serve to diffuse the aspirations of individual intellectuals and thus play a stabilising political role, its relation to increased productivity in most economic sectors is far from obvious. There is also reason to believe that firms may use 'screening' systems when hiring workers, using education, race and other characteristics simply as 'entrance criteria' (see section 4.4).

Furthermore, while the neoclassical emphasis on freedom and individual choice may be an appropriate ideology for the rich and successful who would like to believe the poor are poor out of choice or stupidity and wish to avoid strategies of equality and income redistribution, the real world is very different. The constraints - economic and political - on African economic choice in South Africa, for example, are immense. Planners should be careful of accepting this ideology and its logical concomitant, overall non-intervention in the economy.

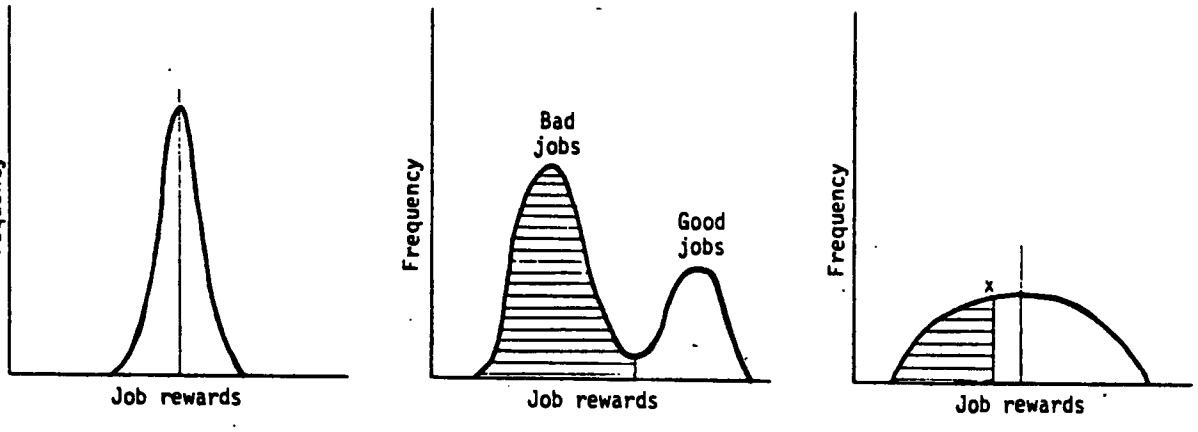
Finally, the neoclassical approaches tend to assume flexible labour demand and a fairly rapid adjustment of the economic system to the supply of labour such that there should be continual tendencies towards full employment in the economy. The exact supply mix of skills and education shouldn't be crucial, but provided it is continually increasing, productivity and output should rise. Most sectors of the South African economy are fairly capital-intensive (based on First-World technology) and the demand for labour seems remarkably rigid in the short- to medium-term. Labour market theories working from this assumption seem more appropriate for analysing the employment position in this country, and are discussed in the next two sections.

2.2 Segmented Labour Market and Radical Theory

2.2.1 SEGMENTED LABOUR MARKET (SLM) THEORY

Segmented labour market (SLM) theories suggest that real labour markets don't allocate labour very efficiently, and workers in different segments or sectors of the economy might receive markedly different wages for labour of the same quality or productivity. According to orthodox economic theory, there should be a tendency (other things - eg age, perhaps - being equal) for such workers to be paid roughly the same wage when present returns are discounted over their remaining working lifetimes. In other words, on a diagram measuring, for labour of the same quality, earnings on a horizontal axis and frequency of jobs (or workers filling job slots) on a vertical axis, the resulting distribution should be bimodal with a low variance (in perfect competition, with no outside factors, such wages would be equal), as in graph (a) in Diagram 2.1

Diagram 2.1 Competitive and Segmented Labour Markets



(a) Competitive (b) 'Strict' duality (c) 'Heuristic' duality

Graph (b) depicts a 'dual' labour situation with two strictly separate labour markets, one good and one bad. The distribution peaks at two separate places and is conventionally regarded as the type whose existence would 'prove' duality (Cain, 1976: 1231; Fields, 1980: 66). It is interesting, though, that both of these fairly sophisticated discussions refer mainly to dual and not segmented or 'multiple' markets (Althauser & Kalleberg, 1981: 121) which is how dualism would actually be manifested in a complex economy; on a static picture of the occupational structure, the effects of these would widen the dispersion, giving it the appearance of (c). Here an arbitrary distinction betwen the sectors has been posited at x, and the area to the left of x can be termed a secondary labour market area even though the labour market is continuous - one could term this 'heuristic' segmentation (Ryan, 1981: 6-7, though his diagram is incorrectly drawn).

The central distinction usually drawn is between weakly-permeable primary and secondary labour markets, the differences between them centering round stability of employment (Piore, 1975: 126). Piore

suggests on-the-job training is the central method of raising worker productivity in the capitalist economy (ibid, 130-134). Workers with a high productive potential might be paid high wages and be given (largely firm-specific) on-the-job training enabling them to fill core jobs in the primary labour market where, given technology and relations between jobs within the firm, worker stability and continuity is important. This commitment to work could be ensured via good working conditions, pension benefits, bonuses etc. Other jobs more peripheral to production, or in which the specificity of the incumbent is unlikely to affect productivity very much (eg seasonal factory canning jobs), could then be filled with secondary workers at much lower wages.

A further distinction has been drawn between upper (independent) and lower (subordinate) tiers within the primary sector. Upper tier jobs are largely on the mental side of the mental-manual division of labour within the firm; they require some initiative, creativity and autonomy from direct managerial/hierarchical control. Here security for the individual comes from considerable non-firm-specific 'human capital' investment, and moves between firms are possible, even frequent. Lower tier jobs involve manual, repetitive work though with some degree of on-the-job or craft skills, and such workers would tend to remain with the firm as the market value of their experience and skills outside the firm would be limited (Piore, 1975: 126-7; Ryan, 1981: 19n4).

Doeringer and Piore further argue that the development of many advanced capitalist economies has created secondary, lower-paying jobs which the 'native' labour force has refused, and poorer migrants or immigrants have been imported to fill them, by force if necessary (1980: 426-7):

> "migration: (1) is a response to general labour shortages; (2) satisfies the need to fill the bottom positions in the social hierarchy; and (3) meets the requirements of the secondary sector of a dual labour market" (Piore, 1979: 26).

Migration begins because employers recruit migrants to fill empty job places in the secondary sector of the labour market (ibid, 24, 35), but once begun, it creates changes in the economies of both the receiving and despatching sides of the labour market which make it very difficult to be terminated.

2.2.2 Internal Labour Markets

Internal labour markets (ILMs) occur within firms and are arenas in which the allocative processes of the market function (that is, area of employment, movement between jobs, wages, development of job skills and so on are structured in regular ways (Althauser & Kalleberg, 1981: 121)), but the structures and boundaries of the markets are defined by institutional rules and administered internally. Firms treat labour as a quasi-fixed factor of production, insulating themselves from the external labour market by these rules and practices. Such relationships as recruiting, promoting and firing of workers might occur on such a basis, possibly via agreements with trade unions.

ILMs are said to derive from skill-specificity, on-the-job training and customary law within the firm (Doeringer & Piore, 1980: 108-115). Their principal function is "to maintain output in the face of unpredictable variations in demand, while minimising the costs of labor turnover to the firm as a whole" (Blaug, 1976: 847). Employers will induce stability by paying workers more than their short-term opportunity wage in the

external labour market, and providing reasonable job security. Once inside ILM's, workers will be sheltered from some competition, and might move horizontally (eg craft union members across employers) or vertically (promotion up job ladders linking clusters of associated jobs) within the internal market.

2.2.3 ENTERPRISES AND LABOUR MARKETS

The historical processes which led to the emergence of primary and secondary labour markets had similar effects on firms which employ the labour. It has been suggested that a similar division between 'oligopoly' and 'competitive' sectors exists for firms, leading on to a two-sector theory of firms and economic structure, a version of which can be described as follows:

Table 2.1 A Comparison of the Competitive and Oligopoly Sectors

	Competitive Firms	Oligopolistic Firms
1.	Small, competitive	Large, oligopolistic
2.	Little effect on factor or product markets	Some market power - especially in product markets
3.	Traditional, 'inefficient' technology	Advanced technology, high capital: labour ratio
4.	Little political influence	Access to/within the state
5.	Jobs poor, few job structures, little advancement, low wages	ILMs common, unionised with formal dispute channels, high wages

(From Tarling, 1981: 284; Althauser & Kalleberg, 1981: 139):

It is argued that massive advances in capitalist production methods and

development of technology in the 19th and 20th centuries led to the development of large, oligopolistic firms in durable manufacturing, extractive industries, various financial institutions and so on. They had some control over and certainty in their factor and product markets, and on-the-job specificity in the work process and the need for a stable labour force led to the development of advanced primary labour markets and stable ILM's. Such firms would have a large core of stable primary workers, with some secondary workers to fill the worst jobs and perhaps fill more productive positions in times of economic boom.

Competitive firms in trade, services and agriculture would be in a far less stable economic position. They would tend to have a small core of primary workers, and otherwise hire short-term, secondary workers, utilised with backward capital and technology. They would be dominated by oligopolistic firms, via competing in the same markets and facing lower profit margins, through subcontracting or by being forced to operate in small markets from which large firms are absent (Danson, 1982: 256-7).

Neoclassical theory suggests that in competitive labour, product and capital markets, returns to investment, profit rates and perhaps firm sizes tend to equalise in the long run, and hence technology also. In fact, where firms' technological investments differ, it is likely that workers of the same quality will have radically different productivities as firms will have different production functions. Job and firm characteristics rather than workers' contributions will tend to determine 'productivities' and incomes. Danson concludes, "the interaction between sector and stratum will largely determine an individual's circumstances" (ibid, 259); this is argued by Beck et al (1978) on the basis

of an in-depth study of the US economy.

The exact location of the boundary between primary and secondary labour markets would depend on the capital used by the firm, development of and access to research and technology, management strategies of maximising control over production and worker resistance to the formal subsumption of labour, and overall firm profitability (Rubery, 1978: 19-20; Gordon, 1974: 48-9; Piore, 1975: 141-4, 146-8). The boundary would come under attack mainly in times of depression and slack labour markets, with managements trying to eliminate ILM's and their costs by downgrading primary jobs into the secondary sector as well as reducing wages all round, and workers trying to preserve their production and wages positions. As Sengenberger puts it,

> "segmentation fluctuates with cyclical changes in economic activity. The cycle of segmentation itself is the result of closure ... strategies followed by management and labour to further their vested interests at different phases of the economic cycle" (1981: 258).

2.2.4 THE DYNAMICS OF SEGMENTATION

Working for convenience with a two-sector model, 1. How are workers distributed between primary and secondary markets? 2. How are wages and incomes determined within each market? (Gordon, 1974: 49-51)

The first question concerns what Ryan (1981: 4) has termed pre-market segmentation, the differentiation of opportunities to enhance productive capacities or formal qualifications via schooling, training etc before commencing employment. Pre-market segmentation involves the differential access to human capital of different individuals for racial,

sexual, class and other reasons.

But dualists and radicals also accept the possibility of in-market segmentation,

> "where individuals of similar achieved productive potentials receive markedly different access to employment or job rewards, including both pay rates and opportunities for training, experience and pay increases" (Ryan, 1981: 5).

This is where orthodox and SLM theorists part ways, the former rejecting in-market segmentation not only due to the theoretical and empirical problems in identifying it, but because of the causal role the market acquires - independent of 'ability' or marginal productivity - in reproducing income inequalities.

SLM theorists hypothesise that there is little mobility or diffusion between sectors or between oligopolistic and competitive firms, thus it is crucial where workers begin their careers. Workers are channeled into production slots on the basis of various factors including discrimination (race, sex and other screening criteria[1]), years of schooling, the efficacy of job search, family contacts and so on (which again relate to class position), and of course, chance.

The second question above posits different worker behavioural and wage-formation patterns between primary and secondary sectors of the labour market which are closely related to forms of in-market segmentation and economic sector:

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1. This can take place for racist or sexist reasons, or be 'statistical discrimination' by which members of a group (blacks, women, new job-seekers, the old etc) are discriminated against because in the past, on the average in that job, firm or industry, they have been observed to be less productive than other workers.

Primary, upper tier: the wage is largely a function of the scarcity of the skill concerned (ie the extent to which access to it has been limited), as well as internal labour markets within and between firms. Especially at upper levels, job structures revolve around formal mental qualifications as well as on-the-job experience. Education acts per excellénce as a screening device.

Primary, lower tier: the wage is a function of access to different (often limited or closed) job clusters, the somewhat rigid patterns of wages and other characteristics (seniority, experience, training) attached to such structures, and the speed at which advancement takes place. Again education and other 'desirable' worker characteristics may act as a screen. Wage patterns are largely determined by technological change, occupational restructuring and institutional factors (minimum wages, industrial relations procedures etc) rather than the external forces of supply and demand.

Secondary: employers will act as though present and potential employees have equal productivities, ie as if secondary labour is homogeneous and employee turnover costless. Wages will be determined not by individual characteristics but by secondary market supply and demand, and will tend to gravitate towards some common low level.

2.2.5 MEASURING AND TESTING LABOUR MARKET SEGMENTATION

Ryan has developed the following approach to segmentation (1981: 9-12):'

APPROACH 1. Where labour is of the same quality but is paid widely dif-

fering wages.

People of equal abilities may earn different incomes depending on their race or other personal characteristics, on where they work, and so on. Even where segmentation is present, it is difficult to compare like individuals with like. Labour quality is not easily measured, and it's always difficult to know whether all human capital variables have been allowed for, eg quality of schooling, on-the-job training, experience, intelligence. In practice, however, "the missing variables argument clearly contains considerable truth but it can be pushed to the point of nonsense" (Fields, 1980: 13), and certainly cannot be used as an a priori 'disproof' of SLM theory.

Furthermore, differential job rewards may include access to further training, thus advantaged individuals may exhibit higher attained labour quality at any future moment in time. This could be solved by comparing lifetime job rewards at entry into the market, a procedure fraught with problems:

i) Empirical - how to keep track of work histories, especially as workers may shift between advantaged and disadvantaged jobs during their lives;

ii) Theoretical - deriving from interaction between pre-market and in-market segmentation. Individuals who believe they have favourable in-market prospects (for family, wealth, race or class reasons) may prepare themselves more thoroughly before entering the market, and the reverse could apply to disadvantaged individuals. Thus otherwise identical

workers might end up being of different quality for market purposes. This could only be tested by elaborate models relating labour quality/ job rewards to social background, ability, in-market segmentation etc, which is difficult to do thoroughly.

In addition, advantaged firms or occupations may employ persons of a higher labour quality. Given initial segmentation, high-wage employers will have first pick, and will presumably acquire higher quality labour. Do differences in job rewards between segments exceed that in their labour quality?

The labour queue or 'screening' position discussed above ties in well here, and in the SLM context can provide fruitful theory for case-studies of firm or enterprise segmentation. For example, based on what criteria do firms choose workers? To what extent do incomes associated with jobs vary within and between firms, and why? Is there scope for workers to better their jobs, with or without formal training? As a corollary (and particularly important in considering educated unemployed people in LDCs), to what extent do past work-histories determine future prospects?

Another proxy indice of this kind concerns credentialism - do educated workers get a pecuniary premium for certificates regardless of their actual productivity or the quality of their effort or output? This could partly be measured by examining differences in earnings and promotions for jobs of comparable grades when additional qualifications or certificates are earned by workers (Mazumdar, 1981: 362).

APPROACH 2. Where jobs are identical but incumbents are paid widely differing wages.

SLM theory suggests workers are largely moulded to jobs which have specific requirements not affected much by differences in actual labour quality, particularly in the lower reaches of the labour market. The viability of this approach centres on the concept of 'job requirements' - that after a certain point, additional worker qualifications contribute little or nothing to productivity. Here, again, research would be useful as it is clear many (largely manual) jobs have very definite requirements (eg truck driving).

2.2.6 THE LABOUR MARKET: NEOCLASSICAL VERSUS SLM THEORIES

The neoclassical and human capital approaches assume that, given flexible wages, labour markets will tend to clear rapidly. This tends to lead to models which argue for maximising the free enterprise role of the private sector in development and minimising state planning. Most SLM, radical and even some conventional theories effectively deny this assumption, and attribute a considerable development role to the state. The central theoretical issue is the link - if at all - between the money wage and workers hired which is crucial to labour market clearing.

Given the neoclassical assumptions about the firm, the economy-wide demand for labour will vary inversely with the real wage (the ratio of money wages to the price level), and supply and demand in the labour market will determine simultaneously real wages and total employment. A change in relevant variables would lead to the system achieving equi-

librium at different levels of prices, money wages and interest rates, with real wages virtually unaffected. Long-run unemployment cannot be a problem in this system as the market possesses an effective clearing mechanism; unemployment arises through temporary disequilibria (eg workers being sluggish about adapting to the changing market demand for labour) or external influences like inflexible money wages, minimum wage legislation etc.

SLM theorists argue for the indeterminacy of the economic system within certain boundaries at the level of the firm, craft or industry (Cassim, 1982: 371). This fits in well with post-Keynesian macro-theory which posits the indeterminacy of the economic system as a whole:

> "Keynes objected to the twin ideas, (1) that real wages depend on the money wage bargain reached between workers and firms, and (2) that labor can reduce its real wage and increase the volume of employment by accepting a lower money wage" (Appelbaum, 1979: 104).

Appelbaum argues that the inverse relationship between remuneration and employment may be true at the level of the firm but not for the economy as a whole, and could have indeterminate effects on the real wage, and that employment is necessary for most individuals, hence in a capitalist economy the supply of labour is likely to be relatively inflexible, and falling wages will not necessarily eliminate an "excess" supply (111-12).

In accordance with the model of economic structure discussed earlier, it is suggested that oligopolistic firms which dominate the economy operate to maximise market share and long-term growth, not simply profits, that due to uncertainty they tend to function with some spare productive capacity (elastic short-run cost and supply curves), and that they have

substantial market control (Appelbaum, 1979: 106-8; also Clifton, 1977: 139-40). In this system, commodity prices vary with demand, the market power of firms and the need for internal funds to finance investment and growth. The real wage is a function of money wages and commodity prices which depend on the rate of internal investment by firms and the pace of economic growth. The demand for labour and estimated profits of the firm are both functions of expected total output in each time-period.

In conclusion, Appelbaum remarks:

> "The labor market is not a 'market' as that term is usually understood, for the labor market does not possess a market-clearing price mechanism. Variations in either money wages or in the real wage rate are unable to assure a zero surplus supply of labor, and thus eliminate unemployment ... the demand for labor depends on the level of aggregate economic activity. It has little, if anything, to do with the marginal product of labor ..." (115).

This model suggests that at the macro-level, unemployment will tend to derive from inadequate overall demand for labour deriving from the historical structure of the economy. At the micro-level, unemployment will be distributed across the working population towards workers at the bottom of the credentials ladder, discriminated-against groups, workers in stagnant areas or industries, newly-hired workers etc; these would end up in low-paid erratic work or be completely excluded from the labour market.

2.2.7 POLICY IMPLICATIONS OF SLM THEORY

1. At an aggregate level, poverty and poor work are not considered to derive primarily from individual choice, incompetence, stupidity or

inability (Beck et al, 1978: 705), they are rooted in structures which benefit some at the expense of others.

2. Training and education programs very similar to those suggested by human capital theorists should be established. These should be made as open and accessible as possible, to deliberately counter the effects of pre- and in-market segmentation. For example, widespread equal education is essential in helping to equalise the racial distribution of income. Its role is necessarily limited, though; regardless of absolute education levels, the least-educated workers will tend to be displaced into the secondary labour market and poverty (King, 1980: 239-40).

3. Ending discriminatory practices which have closed primary-sector jobs to various groups of workers via vigorous political legislation;

4. Policies to shift the distribution of jobs away from the secondary sector into the primary sector. Complex state action would be required, including regulation of trade unions and corporations, and perhaps the subsidisation of secondary jobs via exempting small firms from the costs of social welfare legislation, or wage-subsidies (Cain, 1976: 1224). This could take policy-makers into political areas right outside normal labour market policy (Doeringer & Piore, 1980b: 427-8);

5. An emphasis on full employment policies;

6. Minimum wage and other legislation, which in developed economies with imperfect information and factor markets, could amount to a net

gain for the poor (see Craig et al, 1981: 131-141).

2.2.8 THE RADICAL CRITIQUE OF SLM THEORY

This critique is basically an extension of the segmentation approach, centering around the observation that historically capital has always been plagued by a need to control the labour force to ensure its exploitation thereof. Job structures are not only technologically determined, but may be manipulated by capitalists to further hierarchical control and worker discipline (Gordon et al, 1982: 8).

Capitalists encourage segmentation to stabilise and control the labour force, and facilitate the introduction of new technology. The idea is that workers should have as little control as possible over the speed of production, the allocation of labour-time in production and technology. This is ensured by introducing vertical lines of communication and hierarchy in the enterprise such that each higher job level has more responsibility and authority vested in it, controlled from above by the capitalist. Internal labour markets and accords with trade unions can be useful here (Castells, 1980: 92).

Furthermore, it is imperative that capitalists and the state should avoid the long-term political threat presented by worker unrest, reducing class cohesion by dividing the labour force against itself. This tends to be complementary to the above aims: the introduction of job differentiation and hierarchy creates political divisions within the workforce, often via trade union and skills divisions between workers, and various kinds of racial or sexual discrimination (Lord, 1979: 226-

228)[1].

All such differentiation should not simply be viewed as manipulated by diabolical capitalist cunning, but it may function as beneficial to capital, either through deliberate political-legal organisation, or via customs and practices which are sanctioned because it is evident they favour the existing order of things. They do involve direct pecuniary costs to firms, however, which is one of the prices firms pay for control over the workforce, and may try to reduce during recession.

Marxists define job positions in terms of class categories, common structural positions within the social organisation of production rather than simply in terms of primary and secondary slots, crucial being decision-making powers over investments, the labour process and other employees. According to one major study, class position (major categories being employers, managers and supervisors, petty-bourgeoisie and workers) consistently mediates the income determination process:

> "People occupying different class positions but with the same level of education and occupational status, the same age and seniority on the job, the same general social background, and working the same number of hours per year, will still differ substantially in their expected incomes. And people in different class positions can expect to receive different amounts of additional income per increment in educational credentials ..." (Wright, 1979: 162).

Radicals and Marxists would thus add some long-run recommendations to

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1. Workers may use segmentation to pursue their interests, usually by differentiating themselves from potential competitors (Rubery, 1978: 27-30). As Rubery puts it, "in our analysis, a worker's main concern under competition is to obtain and keep a job" (34). This aspect, however, she regards as less important than capitalist manipulation of segmentation.

those of the SLM theorists:

1. Stronger worker organisation to increase worker bargaining power in the workplace, in terms of employment, job structures and incomes;

2. Some redistribution of national income through the state from high-productivity sectors to lower-productivity sectors and occupations;

3. Strategies of controls on large firms and heavy taxation and some degree of state involvement in particular areas of production, possibly through nationalisation and ousting of foreign firms in LDCs.

4. Considerable pre-labour market reorganisation of schools, community institutions and other agencies of capitalist socialisation, to prepare people for democratic and egalitarian work in their future. Even the educational system can be used for reform, as there is never a complete overlap between the demands of capital and schooling (Nasson, 1984: 13);

5. Radicals would argue for some form of socialist economic system, with worker control over production and greatly increased political power, thus eliminating class conflict within the workplace.

2.2.9 CONCLUSION

Segmented labour market theory seems useful in analysing labour markets in South Africa. Despite its somewhat disparate theoretical nature and the difficulties in applying it rigorously, it appears to yield explanations of real world events and problems not open to more conventional

theories. Of particular interest is its focus on the development of the economic structure as a whole rather than simply explaining the motivations behind individual decisions - in other words, its object is very different from that of human capital theory.

Perhaps the crucial SLM insight is that labour markets help cause poverty and that 'imperfections' in the labour market cannot be overcome - they are endemic to the capitalist system. On the demand side, the structure of jobs, incomes and occupations appears to have an institutional component and dynamic of its own such that poor jobs are created and reproduced regardless of supply conditions. On the supply side, people are forced to work in order to live, and those pushed into secondary jobs, jobs in firms in the competitive sector or casual self-employment are likely to end up among the poor. And where job 'screens' based on education, race, sex or obedience are used, it will be workers falling short in terms of these criteria who will be pushed into the worst jobs - if they end up with jobs at all.

SLM theory also suggests that segmented labour markets are in part an <u>effect</u> of oligopolistic firms dominating economies. In South Africa, for example, sectors like mining, manufacturing, communications, transport, large commercial agriculture and finance tend to be dominated by large, capital-intensive firms paying high wages. On the other hand, rural 'subsistence' enterprises, the urban and rural informal sectors, small urban firms and domestic service are small, labour-intensive, pay low wages and have poor working conditions. This picture is complicated by racial labour allocation, a crucial segmentation factor in the economy, by which African labour is rendered cheap and abundant while white

workers are very generously remunerated; these days, however, other segmentation factors like sex and urban rights are increasingly important (see section 4.2 below).

Finally, the crucial radical observation should not be overlooked, that the above situation is far from coincidental. It derives to a large extent from an alliance between state and capital aimed at keeping the economy strong (ie profitable) and politically stable. This can certainly be argued of South Africa, and accordingly the extent to which economic change, reform and poverty-alleviation can take place is restricted by the balance of political power between classes in society.

2.3 Labour Markets and Less-Developed Countries

Parameters of action in LDCs have changed from generalised lack of labour and surprisingly full employment in the early post World War 2 period to generalised unemployment and vivid poverty in the 1980s. In South Africa, as elsewhere on the African continent, the problem is to explain the coexistence of various tendencies:

a) massive urbanisation;
b) widespread urban unemployment, especially of unskilled labour;
c) labour migration from rural to urban areas;
d) a growing high-wage capital-intensive 'modern' sector, centering around manufacturing and some services, sometimes accompanied by mining and capitalist agriculture;
e) the existence of a substantial but largely unmeasured urban and rural 'informal sector';

f) a worsening position (in many countries) of the very poor, relatively and perhaps absolutely;

g) generalised rural poverty.

2.3.1 EARLY EXPLANATIONS OF LABOUR MARKETS IN LDC'S

When development economics began getting off the ground in the 1950s, the rural-based pre-capitalist economies of most LDC's were still moderately strong and the dynamics of the supply of rural labour to the small modern urban sector tended to be the main focus of analysis. The model which set the parameters of debate for years to come was that of WA Lewis.

2.3.1.1 The 1954 Lewis Model

Lewis was examining the evolution of a dualistic economy (characterised by the coexistence of a modern capital-using sector with rural subsistence agriculture) into an advanced capitalist economy. The productivity of rural labour is considered to be low; marginal productivity could even be zero. It is assumed a perfectly elastic supply of labour is available to the modern sector from the traditional sector at the going industrial wage, determined by average rural subsistence levels plus a margin to counterbalance the effort of moving to the urban sector.

Given constant urban wages, growth is a function simply of capital accumulation, ie the reinvestment of profits. It is argued that underutilised rural labour can be used as a powerhouse for industrialisation,

as the simple reallocation of labour from traditional to modern sectors increases total social product (Sabot, 1982: 1) as well as increasing the productivity of labour left behind in the rural areas. In this sense, Lewis argued, such labour was 'surplus' to the needs of the rural sector (Griffin & Enos, 1970: 134-5).

The exact dynamics of this model are described in many places, and need not be repeated. Some observations are necessary, however, as background to discussion of more recent models:

1. It has been argued that rural labour tended to be utilised seasonally, and almost any migration eventually led to declining rural production - "'disguised unemployment' in rural Africa is either fiction or fabrication and in either case false" (PFM McLoughlin, quoted in Hindson, 1974: 141-2), especially as more productive workers tended to migrate. Labour 'surpluses' might come into being when capitalist development is well under way, as has been argued by Arrighi (1970).

2. A number of factors, including high rates of population growth, high urban-rural income differentials and labour-saving LDC technology have led to massive undisguised urban unemployment - the chief predictive failure of the Lewis model (Streeten, 1981: 325; Ghatak, 1978: 43-4). Lewis did not consider what could be done with unlimited urban labour by a relatively small and what turned out to be employment-inelastic modern sector.

3. Lewis does not consider questions of product demand - who is going to consume the commodities produced by his modern sector? Uneven

distributions of income seem to bias demand away from local products towards foreign imports; while national boundaries and low income levels would be likely to limit the absolute size of the local market (Nattrass, 1982b: 32-3).

4. Finally, there is the problem that the rise of industry vis-à-vis agriculture could lead to rising food prices and urban wages, choking off the industrialisation process. This problem is dealt with by the Fei-Ranis model.

2.3.1.2 The Fei-Ranis Model

Fei and Ranis modified the Lewis approach to argue for the balanced growth of agriculture and industry. As labour moved to industry, a surplus in agriculture emerged over and above subsistence needs, and could be used for as a source of development funds. In this process, the economy moved through three stages,

a) Labour with a zero marginal product moves to industry, and a released agricultural surplus helps develop industry;

b) At some later stage, labour with a positive rural marginal product moves to industry and agricultural total product falls, but by less than the amount consumed by the released worker. Agricultural per capita surplus falls and the terms of trade turn against industry. Lewis suspected that in such circumstances, the industrial growth rate would fall (1970: 432). Fei and Ranis argued that rising agricultural prices could increase agricultural investment and growth;

c) Eventually all 'disguisedly unemployed' labour has moved to industry, and in both sectors wages equal marginal product (allowing for costs of moving, etc).

This model has similar weaknesses to those of the Lewis model. It also does not consider exactly what happens to the agricultural surplus presumed available for industrial reinvestment. It tends in fact to assume a social structure of production and appropriation which was perhaps close to that of 19th century Japan, but nowhere else (Hindson, 1974: 140). In some countries, the increased rural surplus was consumed by the producers (Russia after 1917); small farmers themselves may have a high investment potential if they can but be mobilised (Ghatak, 1978: 43); while in other countries, the surplus never materialised.

Furthermore, in almost all circumstances, as labour consistently migrates out of peasant agriculture, total rural product steadily falls (Ghatak, 1978: 47-8).

2.3.2 SOME RECENT MODELS OF LDC LABOUR MARKETS

In the 1960s and 1970s, tendencies towards rural-urban migration and urban unemployment, rural poverty and the existence of a burgeoning 'informal sector' came to light in most LDC's. Clearly, the Lewis predictions of reasonably full urban employment, an equilibrium between urban and rural sectors and the development of agriculture had not materialised. A host of new models appeared to attempt to explain what was actually happening in the Third World.

2.3.2.1 Economic Explanations of 'Distorted' Factor Prices

Various ad hoc explanations of the coexistence of open unemployment and high urban wages in LDCs have been advanced. They tend either to come from the extreme right of the political spectrum, with the subtle intention of exonerating the labour market from any guilt re the unemployment problem, or from the left, to argue that unemployment is endemic in capitalist LDC's and only revolution and a totally restructured and more egalitarian economy can improve things to any meaningful extent.

The Efficiency Wage hypothesis suggests that the physical productivity of labour is an increasing but ultimately convex function of the wage paid - as wages increase, productivity will rise but will eventually rise less rapidly (Leibenstein, 1957: 91). At the wage where average productivity is highest, costs per effective unit of labour are minimised and at this point the firm demand curve for labour effectively becomes inflexible (Stiglitz, 1982b: 81). The firm will be at an equilibrium but there will probably be open unemployment of labour and wages above the level required to clear the labour market.

Reasons given by Stiglitz for the efficiency wage include a) nutrition and subsistence factors - urban employment requires a certain basic level of physical competence, b) morale - effort may be proportional to the wage earned, and c) if most individuals own land, the wage at which they supply their services to the market may be a function of their abilities (presumably firms have means of measuring this) (1982a: 16-17; 23). Any efforts to lower wages to the 'market-clearing' level in such a scenario could lower output and employment as well.

According to the Labour Turnover hypothesis, higher wages help reduce labour turnover costs for the firm. This is a variant of the above argument related to skills and internal labour markets - firms invest in their workers so they can manage advanced and productive technology, and pay higher wages to minimise turnover costs, accompanied by unemployment.

Various radicals have put forward similar positions. Kitching argues that for Kenyan multinational corporations in the 1960s, stabilisation of the labour force and higher wages paid were necessary for the reorganisation of labour processes to raise productivity and ensure local and international competitiveness. He claims this was because of the specific structural conditions under which they were operating, including limited skills availability, government protection and subsidies, certain controls over the labour force, an unequal income distribution, advanced technology, and international competition (1982a: 387f).

These theories are difficult to test satisfactorily. The optimal wage paid, for example, may differ between sectors of the economy or even within factories, depending on labour recruited, skills required and so on. This argument is usually applied to large modern MNC's with high capital investments and advanced Western technologies (Mazumdar, 1981: 36). To the extent that the argument is valid, it seems to centre around skills, occupational structures, technologies and labour-saving trajectories of development rather than efficiency wages or labour turnover per se. The problem is far broader than that of mere market failure (Stiglitz, 1982a: 23).

2.3.2.2 Market Interference

It is argued here that LDC labour markets tend towards clearance but fail to do so because of incorrect factor prices deriving from 'outside imperfections' induced, for example, by trade union or state interference. Another assumption is thus added to the Lewis dualistic model: that minimum wage levels in the modern sector are set through the political system at a level above the intersection of supply and demand schedules in the labour market. This induces two effects:

a) In the short run, employment falls, and the more elastic the marginal revenue product schedule, the greater the open unemployment. "The conventional market-clearing mechanism - a decline in the (rigid) wage - is thus replaced by a quantity adjustment mechanism - an increase in unemployment" (Sabot, 1982: 3; also Mehmet, 1978: 28);

b) In the long run, profits available for reinvestment are reduced and firms are likely to resort to more capital-intensive production techniques, leading to slower growth and long-run unemployment.

Minimum wages can be set in part from 'outside' the parameters of supply and demand. However, as Stiglitz notes, this method of blaming unemployment on institutional constraints doesn't explain very much even in its own terms. For example, how is the difference between urban and rural wages determined? (ie the difference between the urban wage and the rural supply price of labour) Would a wage subsidy to the rural sector leave the urban wage unchanged? (1982a: 22-3) What are the economic and political forces which set minimum wages?

2.3.2.3 Migration, Wages, Job-search and Rational Behaviour.

a) The Harris-Todaro Model. This model takes for granted an urban-rural wage gap and attempts to analyse the behaviour of rational rural would-be workers in such circumstances: "migration proceeds in response to urban-rural differences in expected earnings with the urban unemployment rate acting as an equilibrating force on such migration" (Harris & Todaro, 1970: 126). The propensity to migrate from urban to rural sectors is thus a function of the difference between urban and rural wages multiplied by the probability of urban unemployment. As in the market interference model, open unemployment may survive indefinitely. An interesting prediction is that modern sector job-creation may have the effect of increasing open urban unemployment, as more people move from rural areas to compete for jobs. This could well increase total product, however, as people would be deserting relatively unproductive rural activities.

Versions of this approach have had some success in modelling urban unemployment and urbanisation when modified to include such aspects as differences in costs of living, costs of transportation, imperfections of information, and the presence of the urban informal sector (see eg Stiglitz, 1982a: 27-29). It can also be adapted to explain many of the long-term labour supply trends mentioned at the beginning of this section. It helps explain 'cross-section' labour movements - at any particular moment in time, where are jobs found? and where is labour placed to fill them? While it is statistically powerful (though there is a problem of different types of migrants having different supply prices), the psychological and psychic aspects of this theory - centering around

actual migrant decision-making processes - are almost impossible to examine, thus weakening its usefulness as a planning instrument (Sabot, 1977: 25-6). Finally, more analytical questions are not treated by the model: how did such a situation arise? How can it be changed?

b) Job-Search Models. These stress the lack of matching between the supply of labour and demand for workers as a major source of unemployment. Open unemployment, especially in LDCs, could be 'voluntary' in the sense that job-seekers might pass over poor jobs in the hope of finding better ones later. Job-search is presumed more efficient while people are "self-employed in information collecting" (Sabot, 1977: 20) - though with declining temporal returns to scale - and workseekers set a reservation wage such as to maximise expected income from holding out for a high-wage job, while operating under current financial constraints (Harris & Sabot, 1983). The unemployed here are looking for jobs meeting their aspirations "rather than simply being unfortunates who have been unable to find work primarily because of an inadequate overall number of jobs" (Hofmeyr, 1984: 57). Again, simple job-creation or welfare payments may increase unemployment.

This model is subject to the fallacy of composition: the job-refusing behaviour of a large number of job-searchers might be perfectly compatible with few actual positions being available. If each job-searcher accepted the first job offered to him or her, it is far from evident all would end up working. Furthermore, empirical tests sometimes show that the refused job offers are for remarkably low levels of pay - it may be only tritely true that job-searchers are 'voluntarily' unemployed (for an example, see Hofmeyr, 1984: 62-3).

2.3.3 THE DEMAND FOR LABOUR IN DUAL-ECONOMY MODELS

2.3.3.1 Introduction

It tends to be effectively assumed in the above models that the demand for labour is unstructured and limited only by relative factor prices - that it is demand for whatever labour is available, skilled or unskilled. By contrast, a central assumption of the SLM analysis is that existing technology and capital and labour-processes structure the resulting demand for labour to a considerable extent. Hence a crucial point in analysing Third World countries becomes: how flexible is the labour demand of industry and the modern sector? Does the price system reflect imbalances in such a way that firms will respond to its signals and eliminate them? Do labour markets function as a tool of competitive growth-oriented development in the way predicted by orthodox economic theory?

2.3.3.2 Markets in less-developed countries

For policy purposes, it is often assumed for LDCs "that labour markets work reasonably well" (Squire, 1979: iii), and that poverty and unemployment problems stem from elsewhere in the economic-political system (ibid, ii). The problem is that that economic market failure can take place - firms and individuals needn't behave as predicted by the neoclassical assumptions, especially in the Third World.

Firstly, where large numbers of small 'firms' (ie economic agents functioning as centres of decision-making power) exist on the brink of

poverty, rational decision-making can mean strategies of survival, of maximising money income or profits over too short a time-period (eg one day) for questions of price formation and reinvestment to affect decision-making (Santos, 1979: 135-8). In other areas, markets may hardly exist, for example rural labour markets and capital markets in LDC's. Secondly, there can only be a tendency for markets to clear when economic agents have a considerable knowledge of market conditions, about alternative options, employers and commodities available, prevailing prices, conditions likely to prevail in future economic periods, and so on. Yet it is precisely regarding these factors that the knowledge of such agents, especially in the poorer section of the labour force, will be deficient. For them, prevailing wages and prices may bear no relation to opportunity costs.

Finally, monopolies are prevalent in LDC's, whether state corporations or foreign and large local firms dominating local markets. To utilise the competitive model of wage determination and employment in such conditions is faulty (see Killick, 1980: 35), and to resort to models of desirable 'shadow prices' in such a context as is sometimes done seems meaningless. Furthermore, given existing market distortions, a move towards freer markets - by the 'second-best' principle - is not necessarily desirable, and could do more harm than good to market functioning and the economic welfare of the poor.

2.3.3.3 'Incorrect' Factor Pricing

Market-oriented economists often stress the role of 'incorrect' factor prices in causing LDC market distortions and unemployment. Hunter for

example cites various authorities who claim to trace a direct relationship between wage increases and unemployment, and high capital intensity and unemployment (1972: 45-6). Most LDC industrialisation policies tend to cheapen capital via overvalued exchange rates, industrial incentive legislation, accelerated depreciation etc. Likewise, many writers have questioned the heavy taxation of agriculture to aid modern sector investment, as well as employment-reducing mechanisation effects in agriculture (tractors, government capital-intensive schemes) - such policies have led to rising urban wages, decreased employment growth and robbed the rural sector of purchasing power and development funds.

No doubt 'incorrect' factor prices have been a problem over the years in LDCs. More cunning use of the market allocation process could have some marginal effect on factor efficiency and use (Hirschman, 1982: 384). But it is far from obvious that 'getting prices right' will solve the LDC employment problem:

> "The favourite prescription of the economists - besides doubling or tripling of growth rates - is to correct the price system, particularly exchange rates, interest rates, terms of trade between agriculture and industry and prices of all factors of production. But has this faith in the price system been tested empirically? ... No one will dare suggest that price corrections will not move these economies in the right direction. But are they decisive? Or do they make only a marginal impression on the unemployment problem?" (Mahbub Ul Haq, quoted in Hunter, 1972: 47)

In fact, it is probable that the development pattern of most LDCs is such that, even at times of economic boom, fewer jobs are being created than there are new entrants to the labour force. It was suggested earlier that import substitution industrialisation, technology transfer from DCs, a highly unequal income distribution and demand structured towards expensive modern sector products could lead to an overall

labour-saving development trajectory with permanent high unemployment.

2.3.4 CONCLUSION

The above models yield some interesting insights into labour allocation and worker earnings in LDC's, again with considerable application to South Africa. It should be borne in mind, though, that the two sections above should be seen together. The prevailing economic position of LDC's described at the beginning of this section has tended to result from capitalist imperialism and colonisation, resulting in the coexistence of an advanced capitalist sector deriving mainly from the First World, and remnants of local subsistence production and small indigenous firms getting off the ground. The modern sector is not only advanced technologically, but tends to have considerable political sway in the society. In fact, all too often it provides the small oligarchy controlling the state with much of its revenue, part of which the state redistributes to the classes supporting it. This is one of the lacunae in many of the above approaches: they fail to realise that all models of 'distorted' factor pricing and labour allocation have political underpinnings which need to be brought into the open.

This has been analysed of Egypt where the influence of high rigid public sector wages had an influence throughout the economy, distorting labour markets and leading to the kind of position described in the market interference model (Hansen & Radwan, 1982: 43-7, 146-7). Employment and wages in the public sector tended to be set autonomously from the economic system because the state needed the political support of its bureaucrats and university graduates. This implies that better labour market

functioning and increased social welfare might have as political precondition the changing of governments in power and their replacement by ones with the interests of the majority of the population at heart!

The above analyses suggest that strategies to deal with the two sectors in LDC's might be qualitatively different. In a sense this is true; programs of correcting factor prices and more labour-intensive production tend to be very different from rural development and fulfilment of the basic needs of the population. On the other hand, the two sectors are very closely linked: the prosperity of the modern sector is in part a function of the exploitation of the traditional sector (providing cheap workers and commodities), and the development of the latter might require a shifting of national political and economic priorities in that direction rather than simply 'getting prices right'.

Where this does not happen, rural to urban migration and the immiseration of people left in the former sector are likely. Migration thus seems impossible to prevent and may often be the only way to improve individual's positions; restraining it, as in South Africa, is likely to lower incomes and worsen rural poverty. This is another of the 'political' factors affecting poverty analyses in South Africa: the massive, looming presence of the state in the labour market and hence in the income-determination process.

"When it comes to unemployment, things are not as simple as they seem"

- Paul G Schervish

CHAPTER THREE THE SUPPLY OF LABOUR

A crucial and under-researched determinant of the LDC unemployment problem is that of the available labour force, the supply of labour in the economy. It can be measured in a variety of different ways, with differing implications for labour market efficiency and the necessity for state planning. Standing suggests these approaches can be regarded as either behavioural or normative (1978: 25), and the discussion here will follow his typology (ibid, 25-47).

3.1 Behavioural Approaches to the Labour Force

3.1.1 THE LABOUR FORCE METHOD

This method is widely used, with almost all unemployment figures bandied about internationally and in South Africa being based on it. It measures labour supply and under-utilisation on the basis of the behaviour of such labour in the recent past. The supply of labour is calculated as the ('socially determined') working age population multiplied by the measured economic activity rate. The unemployment rate is equal to the number of unemployed people divided by the sum of employed and unemployed.

The major problem, of course, is simply distinguishing between categor-

ies, especially when analysing labour in LDC's. The concept of economic activity on which the approach is based relies on two distinctions:

i) Productive labour versus idleness, ie economic versus non-economic uses of time. This notion is based on the 'gainful employment' idea, involving either compensation for work or production of marketable goods and services. It allows many anomalies - some people are 'paid' for clearly unproductive activities (eg beggars), while others do not produce for the market or are not specifically compensated for their labour (eg family use-value subsistence production). In practice,

> "the labour force approach adopts a basically functionalist position by which certain activities not resulting in the production of goods and services for sale legitimately are excluded from the definition of productive work" (Standing, 1978: 27).

This excludes mainly criminal activities and domestic or home labour.

Other more minor problems are the reference period used (eg less than a day, daily, weekly, monthly) which should allow measurement of seasonal or temporary unemployment, and the amount of work required to be included as employed, with unpaid family workers as a particular problem.

ii) Economically active versus inactive members of the population. Age limits used are arbitrarily defined (normally about 15-65 for men, 15-60 for women), and may be inappropriate where children or the old work[1]. More importantly, 'labour supply' is a complex concept, including time

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1. While it may be regarded as desirable to reduce or minimise such work, it's still important to know about it and monitor how it changes over time (see Schildkrout, 1980). One ILO publication appears to hold the view that it need not be monitored precisely because cut-off points by age should be an object of state policy (1971: 47n2).

of work, intensity of work, continuity of work and so on, but the approach effectively derives a single measure to estimate all these - the unemployment rate. If one is attempting to measure both the labour force available for development and the determinants of poverty, unemployment may be only the tip of the iceberg,

> "to be able to afford to be unemployed, one has to be fairly well off ... the root problem of poverty is not unemployment, it is very hard work and long hours of work in unremunerative, unproductive forms of activity" (Streeten, 1981: 327).

Another weakness is that labour force approaches imply workers must actively have been searching for work in the recent past. While generally accepted 20 - 30 years ago, the bluntness of this approach has often been acknowledged. For example, the United Nations Economic Commission for Africa suggested in the 1960s that the requirement "actively looking for work" be replaced by a modification to "include in the unemployed category persons not seeking work for specifically valid reasons" (see Gil & Ghansah, 1968: 132). There may be no market demand for certain types of labour (eg women, children, the aged), there may be no employment service through which work can be formally sought, and even where some demand exists, it may be sated and inflexible. Due to all these considerations, workers may be keen to work but 'discouraged' by labour market factors from searching for employment (ILO, 1982b: 43).

Discouraged workers are normally regarded as economically inactive, as outside the labour force. If the object of consideration is poverty eradication or the labour reserve available for growth, they should perhaps be regarded as unemployed. This category is often quite large; a Tanzanian study showed that inclusion of discouraged workers as unem-

ployed raised the unemployment rate by 50% (Sabot, 1977: 18), while in India there were as many as the unemployed proper (ILO, 1972: 150) (see also section 6.5.1 below).

The ILO thus recommends that an 'extended' definition of unemployment to complement the normal one be monitored. It should include people "currently available for employment" but "not seeking employment for specified reasons", for example a belief that work is unavailable, a lack of knowledge of where to find work, illness or short-term layoff (ILO, 1982b: 46). Statisticians tend to shy away from such categories based on the expressed intentions of individuals (ILO, 1971: 49), but there may be no alternative method available. At any rate, knowledge of people's work desires and preferences would be useful even where it is somewhat uncertain exactly what is being measured - at least gross anomalies in the labour force approach would probably be exposed.

3.1.2 MEASURING TIME-USE

This approach is of particular interest in analysing economic activities of people without formal sector jobs. The actual activities which people are doing are measured in terms of time spent on them in a specific day, week or year, the skills employed in each, the resources used (tools, land, animals), and the incomes earned. Those which are economically relevant are then analysed.

The advantages of this method are that a) few a priori assumptions need be made; analysis can be done after a survey, not before (Birdsall, 1980: 159); b) it can be used to measure the duration, intensity and

regularity of all economic activities people are engaged in, and is thus ideal for productivity analysis, especially in rural agriculture or the informal sector (for example, is productivity low because people aren't working hard enough, or do they lack complementary factors of production - education, land, equipment etc? where are other inputs required? (Birdsall, 1980: 160)); c) it reveals the considerable indirect economic contribution made by women and children, often not exposed by other methods (Dixon, 1982: 540).

The main constraint is simply the expense involved. Any time-use survey requires close investigation and the trust of the subject population; representative national or regional samples would need large teams of interviewers with fat questionnaires for lengthy periods of time, especially if seasonal or other changes in time-use are to be measured. It may fail to expose 'dual' or socially deviant activities, and is subject to considerable recall error if done with reference to a period of time longer than a day, or if some people report for others (see Standing, 1978: 35-37; Anker et al, 1982: 23-4). B White suggests the maximum effective recall period may be as short as 24 hours (1984: 20), and cites a Java study in which there was an estimated 29% - 45% underestimation of work activities in a monthly compared to daily time-use survey, rising to 40% - 57% in an annual survey. This kind of result may negate the value of the quarterly or annual surveys discussed by Bruton (1980: 107, 113-120), even where actual hours worked are not measured.

3.2 Normative Approaches

These take it for granted that the chief problem in LDC economies is the

incidence of labour under-utilisation. The unemployment figure is regarded as inadequate because it depends rather arbitrarily on measured activity rates and definitions of employment, and many of the supposedly 'employed' are working less or less productively than they would prefer, or than is possible. As Gunnar Myrdal put it,

> "We must discard entirely the concepts of 'unemployment' and 'underemployment' as inadequate to reality. We have to base our analyses of labour utilisation on simpler behavioural concepts: which people work at all, for what periods during the day, week, month and year do they work, and with what intensity and effectiveness" (quoted in Standing, 1978: 40).

3.2.1 THE SYMPTOMATIC AND LABOUR UTILISATION APPROACHES

The central concern with these is the measurement of underemployment in a manner extending the labour force approach. In the former case, an 'integrated symptomatic framework' applying to the whole population is defined as in Diagram 3.1 on the next page. Four forms of underemployment are isolated: visible underemployment (people working short hours who wish to work more) and three measures of 'invisible' underemployment, where a person's input is 'inadequate' in terms of usage of skills or his/her income or productivity is too low.

In practice it is almost impossible to decide when jobs don't permit full use of capacities, and this measure is usually dropped; in any event, it applies mainly to persons with secondary or vocational training who are usually not among the very poor in less-developed countries (ILO, 1971: 46; 1982b: 19). For the other categories, underemployment could be computed by taking some arbitrary norm (in terms of hours, earnings or output per person per time period) and calculating for each

Diagram 3.1 The 'Integrated' Symptomatic Framework

Total population

+ Economically inactive

+ Economically active

+ Fully employed

+ Underemployed

+ Visibly (working part time or for shorter than usual periods of work, and who wish to work more[1])

+ Invisibly (where people work full hours but their employment is inadequate):

+ Jobs don't permit full use of skills/capacities } disguised
+ Abnormally low earnings }
+ Work in establishments with abnormally low productivity } potential

+ Unemployed

(Taken from Standing, 1978: 43-4; ILO, 1971: 46f; emphasis mine)

the following ratio:

$$\frac{(\text{Norm} - \text{Average Actual})}{\text{Norm}} \times 100$$

By multiplying these percentages by the proportion of the labour force affected and summing the total, the extent of underemployment could be estimated. The unemployed (100% underemployed, the 'limiting case' of underemployment) could then be added to this sum.

An extension of this is the Labour Utilisation Framework, proposed by Philip Hauser in 1971 (Clogg, 1979: 4); it has had some applied success

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1. With a limit at 'normal' hours or work (LO, 1971: 52).

in several Asian countries (ILO, 1982b: 18-19). Using similar methods to the above, it attempts to measure labour capacity lost, or wasted over time.

These systems have ambiguities largely because of the measures used (underlined in the above diagram). The productivity concept is different to operationalise and arbitrary even if compared to existing productivity levels elsewhere in the economy; there is also no convincing logic that productivity levels should tend towards similar regional or sectoral levels in an economy. Statistical problems are almost insurmountable, and even if these were overcome, productivity increases could well lead to a worsened income distribution in the economy, for example by displacing less remunerative income-earning activities (ILO, 1971: 58-9). The income indice is also difficult to measure.

In practice, these systems tend to equate incomes with productivity, using the former as indice of the latter. This is highly problematic - as argued above, the twin aspects of individual income and underutilisation of labour are very distinct (E Klein, 1983: 188), with different policy implications. Of course, there is quite a considerable 'overlap' between categories: many people who are 'multiply deprived' (both earning low incomes and unproductive) could only arbitrarily be assigned into one or the other.

Finally, there is the question of how employable the unemployed or visibly underemployed are - how much and what work do they want to do, and what work are they capable of? It is also clear that any investigation would have to be carried out regularly during the year, to monitor

seasonal or other changes in work-related activities.

3.2.2 THE LABOUR EFFICIENCY APPROACH

This method focuses especially on the arbitrariness of the criteria for trichotomising the population into employed, unemployed and non-economically active as per the labour force approach. The central object of policy is to be the efficiency of labour; accordingly, Gunnar Myrdal proposed that the level of actual labour utilisation be expressed as the product of the following three ratios:

$$\frac{\text{output}}{\text{labour force}} = \frac{\text{working numbers}}{\text{labour force}} \times \frac{\text{man-hours}}{\text{working numbers}} \times \frac{\text{output}}{\text{man-hours}}$$

output per person	participation	duration	efficiency

Underutilisation of the labour force is defined as the non-achievement of values of these three components which could 'reasonably' be achieved by 'feasible' policy measures in a planning period (Standing, 1978: 40).

While the focus on efficiency is interesting, some crucial problems do appear: a) the use of normative judgements of measurement; these are as arbitrary - and perhaps misleading - as those of the labour force approach (Sabot, 1977: 14), even where they are set by governments with the objects of policy and feasibility borne in mind; b) the index only has any meaning if the composition of the labour force is regarded as constant, but if it changes (eg economic growth, more women working), temporally successive measures would be incompatible; c) the approach tends not to be able to deal with the openly unemployed. In practice, this measure could probably be used on a small scale or for geographi-

cal/sectoral disaggregation in areas where labour is relatively unproductive, possibly in tandem with time-use investigation.

3.2.3 THE PREALC SYSTEM

The Latin American Regional Employment Program (PREALC) has developed an income-focussed system which is also designed to identify the sources and nature of labour underutilisation. Using a series of questions, it tries to classify people into eight categories:

Diagram 3.2 The PREALC Incomes System

+ People outside the labour force:
    + By choice
    + Those who thought no jobs were available
+ The Labour Force:
    + Workers with stable incomes:
        + Fully employed workers
        + Those working fewer hours than preferred
        + Those not using all their training/qualifications
    + Workers with fluctuating incomes
    + Occasional workers
    + The open unemployed

(see Bruton, 1980: 106; Pazos, 1975: 238)

This method has interesting policy implications in terms of programmes of helping to increase, diversify and especially stabilise the incomes of the poor. It is uncertain, however, what exactly it has to say about labour markets and worker productivity for policy purposes.

A related incomes-focussed method equates full employment with long-run job security in a study of Chile (Schwefel & Schwefel, 1973). Underemployment is evinced by temporary employment, erratic wages, high risk activities (eg informal sector enterprises), and lack of social security.

3.2.4 THE UNDERUTILISED TIME MEASURE

This is related to some above methods, and is based on the suggestion that a meaningful policy focus could be "the difference between hours worked and hours wanted" (ILO, 1971: 81), the former being measured by 'net' working time on the job once 'waiting' or unproductive time-use is eliminated (ibid, 78) - "in how many hours, given the techniques and conditions in which the activity is actually performed", could the person concerned have produced the output or service in question, working at a reasonable rate" (ibid, 79, emphasis in original). Hours of work wanted could be measured in terms of a weekly hours norm (say 40 per week maximum) at the average current remuneration for that kind of work in the locality of residence. The total measure would be in terms of millions of man-hours per annum wasted, or wastage as proportion of man-hours effectively worked (ibid, 82n1).

Much underemployment, however, is due not to short hours but low productivity (and little capital) while actually on the job, job earnings can vary considerably within highly segmented local labour markets, and it is difficult to measure work aspirations and 'actual effective hours worked'. Finally, while the ILO in presenting this schema makes much of income criteria, these don't actually enter into the underutilisation

measure.

3.2.5 MARXIST APPROACHES

These suggest that unemployment reveals the workings of the capitalist economy and its crises, particularly as they affect the working classes. For reasons of enhancing firm bargaining power in labour markets dominated by capital, containing wage demands and reducing labour turnover, it is claimed individual firms maximise profits and efficient production at employment levels which may be below full employment: "what proves beneficial for an individual firm is dysfunctional for the system as a whole" (Schervish, 1983: 50).

It is also argued that productivity imperatives move firms towards long-run capital-intensive or labour-saving methods of production deriving from advanced capitalist countries, which are likely to lead to long-run unemployment and underconsumption crises in LDC's. At a macro-level, underemployment results from incomplete or uneven proletarianisation, the unequal and discriminatory functioning of the market system, and lack of competitiveness in a highly uneven development process. It may be beneficial for large firms and MNC's that this situation be preserved, whether because it raises profits directly by providing a cheap labour force and lowering costs of labour force reproduction, or because incompletely proletarianised workers may not be a political threat.

In practice, Marxists tend not to have a unique methodological programme regarding unemployment and underemployment; they adapt elements from other approaches while giving them a political content and seeing them

explicitly within processes of capitalist underdevelopment and class struggle.

3.3 Families, Women and Work

3.3.1 EMPLOYMENT AND THE FAMILY

It is often suggested that the 'employment' concept should refer to the family (nuclear or extended) rather than the individual:

a) Employment decisions within families are affected by the overall work- and income-position of the family;

b) Employment decisions may be made by the whole family acting as a decision-making unit;

c) If one is looking at employment from a basic needs perspective, it is the economic unit within which income is allocated rather than the individual worker which is the ultimate mediator of poverty.

The policy implication is that the seriousness of the employment problem is in part a function of total household (family) income and resources and the number of people working within it. An ILO study of Egypt, for example, found poor rural households were mainly those "with no, or little, diversity of income" (Hansen & Radwan, 1982: 124; see also Safilios-Rothschild, 1980: 346-7). Development targets can include minimum income objectives for family groups; even low-income or submarginal jobs can be assets to poor households (Mouly, 1972: 160).

The 'household', however, is not an unproblematic concept. Many authors tend to regard it as a common decision-making centre, trying to maximise collective advantage (see Mouly, 1972: 158); this should not be taken for granted (as is done, for example, by the ILO (1971: 68-9; 1972: 151-2)). For welfare purposes, the household is not necessarily a unity - the distribution of income within households is a result of processes of conflict, struggle and power (Harris, 1981: 56). For example, when household incomes rise, family members don't necessarily benefit due precisely to a lack of 'trickle down' effects between male main-income earners and the rest of the family, and within households, women appear to have more concern for family needs (Nelson, 1979: 13-14, 45, 60-1). It can also be argued that men themselves benefit from inequality within the family, from control over women's labour (Folbre, 1982: 319), and development strategies aimed generally or at either sex should not ignore this problem.

Furthermore, men tend to enter and stay in the labour force, while women's economic participation is often variable and fluctuating. They tend to be secondary earners for whom questions of underemployment may be difficult to assess (Clogg, 1978: 12), but for whom temporary earnings may be imperative, either because the male household head is not earning or not remitting, or because the women is herself the household head facing poverty in a discriminatory labour market (Jelin, 1982: 255-7; Safilios-Rothschild, 1980: 349-351).

3.3.2 WOMEN, STATISTICS AND DEVELOPMENT

A number of recent studies have pointed out that women are poorly

treated in development statistics, leading to frustrated or misdirected development planning (see eg Dixon, 1982; Anker, 1983; Beneria, 1981). They tend to be ignored or regarded - as noted above - as 'not economically active', while much recent research indicates that very few rural women anywhere don't work; their contribution is crucial in lowering costs of reproduction of rural households, as well as providing a direct economic input (Beneria, 1981: 18, 23; White, 1984: 23). Hence

> "the paradox, so commonly found in the Third World, in which a local economy survives thanks to women's involvement in subsistence production while men are unemployed; yet official statistics show low labour force participation for women and high participation for men respectively" (Beneria, 1981: 25).

Unfortunately the physical and social "invisibility" of women (Nelson, 1979: 13) has often led to their economic input being underestimated and to their not being provided with a suitable development role.

One problem is that women are subject to constraints often underestimated or ignored in statistics, including child care (Sachak, 1981: 124), domestic household responsibilities of fetching water and preparing food (Nelson, 1979: 61) and cultivating with often outmoded implements under poor conditions. Any policy intervention should take these into account: many or most poor rural women work very full but 'underemployed' days, and attempts to raise their incomes and improve their lives should reduce time spent in 'drudgery' by raising the productivity of their labour and letting them work fewer hours. Most 'conventional' rural development programs (extension services, training, credit and marketing facilities and so on) effectively fail to reach them and address their specific problems. Hence it is particularly important that statistics should include a strong focus on women, rural and urban: what are they doing? what temporary or permanent work are they doing

and what is its economic importance? what market constraints do they face?

3.4 The Usefulness of the Discussion

The above discussion should be seen explicitly in a policy context:

> "the purpose of having measures of labour supply is to have knowledge of the productive potential of the labour force, to measure the likely responses to changes in policies or the level and structure of incentives, and to identify the constraints and determinants of labour supply" (Standing, 1978: 50).

The labour force approach is simple and objective once the many assumptions about defining categories have been made. Data is easily collected, fairly straightforward and easily understood. But it is evident that simple labour force indices can be meaningless or highly misleading for rural or low-income households. Their main problem is that they fail to give a true estimate of the magnitude of the demand for employment by low-income people. This is likely to be the case in South Africa, where labour markets are often virtually non-existent in rural areas or the 'national states', the demand for labour is highly segmented and often excludes women and the uneducated, and legal factors constrain job-search and population mobility.

To overcome these problems, a variety of additional labour force measures are needed:

a) Employment and unemployment: these should be refined and the problem of job search and discouraged (especially rural) labour confronted;

b) Indicators of underemployment or underutilisation of labour, measuring the productivity of labour and the magnitude and stability of incomes earned from work, are particularly important. In this area, 'normative' measures cannot be avoided.

No indice or statistic produced is entirely satisfactory; those chosen would depend on resources available and on the kinds of policy being proposed. At any rate, it is clearly important to know about both the work- (labour force) and income-related (for households) aspects of poverty if an effective basic needs strategy is to be implemented.

In South Africa this is particularly relevant when analysing the large number of households based in the 'national states' and involved in various forms of 'subsistence' or informal sector production. They should be a priority for development, yet little is known about what they are doing, what resources they have available and what the development potential - if at all - of their work-activities is. Investigation here would require extensive underemployment research, and various directions here have been described above. Research here should take place in conjunction with actual development strategies, for the usefulness of each measure is clearly related to what is to be done with its statistics at a practical level.

"We are employed in narrowing the circles within which the final truths must lie, rather than in an attempt at once to seize them"

- 15th Annual Report of the (British) Statistical Society, 1849.

CHAPTER FOUR SOME AREAS OF LABOUR RESEARCH

Chapter 2 dealt with the determination of employment levels, incomes and labour allocation within the context of labour market theory. Chapter 3 discussed theories of unemployment and underemployment at a fairly general level. This chapter delves into some areas of labour research suggested by these discussions and provides background for the analyses of labour planning in Part Two.

4.1 Labour Market 'Inefficiencies'

4.1.1 INTRODUCTION

Questions to be confronted in this section centre around information and data needs required to improve the operational efficiency of (segmented) labour markets and reduce 'maladjustment', and provide some parameters for long-run manpower planning. The importance of such data concerns both practical employment service-type operations, and long-term regional or national policy. For example: is the employment problem one of absolute job-shortage or mismatch and in which areas or occupations? The according policy implications might vary between stimulating labour demand and state expenditure and simply providing better training facilities and labour market information. In which areas is policy

intervention most important? How effective is it? To what extent and where do labour market participants need more or better labour market information?

Poor labour market functioning can be a major cause of employment problems. For example, a study of Egypt (admittedly, a hitherto tight labour market) suggested the following:

> "Employment problems surface in the labour market ... workers with a multitude of skills, abilities and other characteristics are chasing and being chased by jobs with a multitude of specifications and requirements. Open unemployment, underemployment, vacancies and overstaffing exist side by side. To make this huge jigsaw puzzle fall into place, now and in the future, by bringing labour and jobs together, within or across segments, is the ever-present problem of an employment strategy for Egypt" (Hansen & Radwan, 1982: 4).

It argued that Egypt was suffering from "increasing maladjustment in the labour market", with rising unemployment of, particularly, youths with some formal education but without skills matched - even dominated - by shortages in certain specialities, and unskilled labour in unattractive areas (ibid, 7).

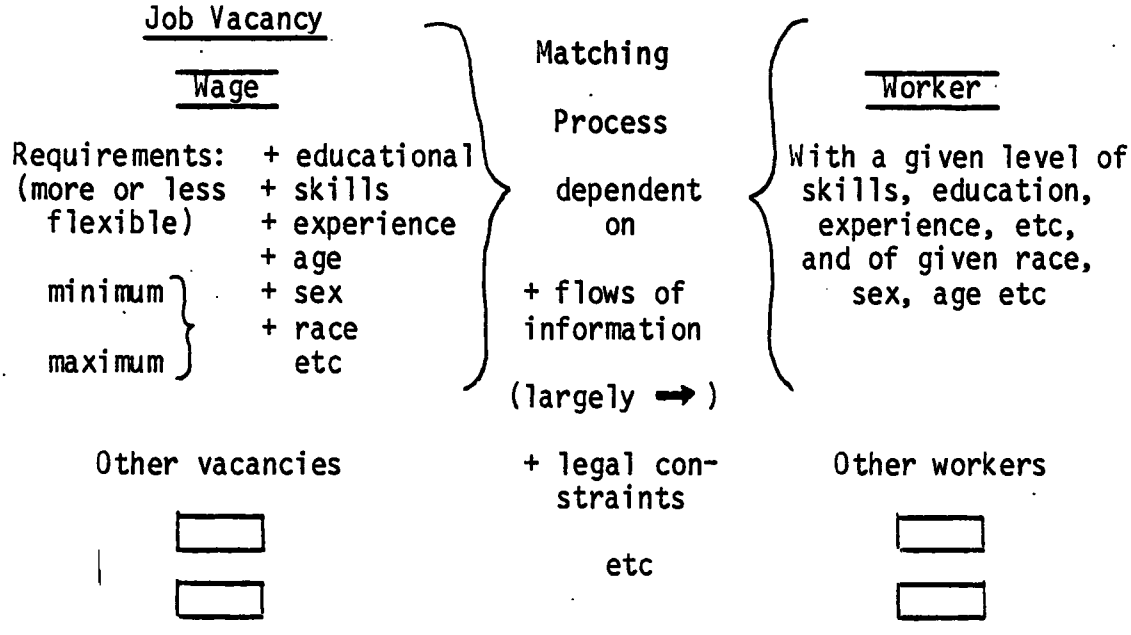
4.1.2 LABOUR MARKET EFFICIENCY - A STATIC APPROACH

The labour market can be regarded as an arena for the matching of persons to jobs. The major measure here is the job vacancy, the principal use of which "is to assist in the determination of the most appropriate policy ... to reduce unemployment without at the same time causing inflation" (Myers & Creamer, 1967: 108).

The short-run decisions of firms and workers in a dynamic context can be depicted thus:

Assumptions: i) a short time period (less than four weeks, say), in which firms have constant technology and product demand; ii) wages are fixed and tied to jobs, not to individual variations in performance and human capital (Sorensen & Kalleberg, 1981: 55-7); iii) only the formal sector of the economy is under discussion.

Diagram 4.1 Matching Workers and Jobs



Here the economic 'loss' caused by labour market 'inefficiency' in terms of jobs not filled immediately they are vacated can be measured by:

$$(1)\ \text{(Number of Vacancies)} \times (2)\ \text{(length of time of unfilled vacancies)} \times (3)\ \text{('Productivity' of vacancies)}$$

which are dependent on: $(6)\ \text{(willingness of workers to move between jobs)} + (7)\ \text{(labour market information)}$

The short-run 'efficiency' of this fit will depend on the number of minimally qualified workers who hear about and apply for the job, and

the quality of the information about it which is available. Once each job has applicants and the best applicant fills each job, an additional measure of labour market efficiency can be described thus:

(4) (Closeness of fit of job applicant to job) + (5) (possibility of improving 'productivity via training, experience)

Most of the above indices, it seems, are measurable:

(1) Data on numbers of vacancies are to an extent already recorded in South Africa (eg published vacancy figures; registration of jobs at labour bureaux), while others could be found out via vacancy surveys. This is of course dependent on,

(2) Length of time vacancies are empty: again found out by survey or census, perhaps through direct records being kept on an ongoing basis, or through statistics of time taken to fill most recently filled jobs being collected (eg in the last three months), and an average taken. Different estimates would be calculated for jobs at different levels in the occupational structure.

(3) 'Productivity' of vacancies. Which job/occupation in which industry is empty? How can 'jobs' be isolated? and how important are they to firms? The former question could be approached using the ISIC classifications and adjusting data supplied by firms to them; the more jobs are defined by technology and training requirements, the better this approach might hold. On 'productivity' things are more difficult. The wage or salary can be taken as simple indice, which is not all that

valuable. Alternatively, how much output or profits is the firm likely to lose by having the job empty? how many other jobs does it affect, or leave unfilled? does the vacancy slow down the long-term growth rate of the firm? These are unmeasurables; approximations could be taken, and in some cases the level of remuneration could be regarded as indication of the urgency with which the job should be filled. The more rigid the job requirements, the easier it should be to derive an indication of the costs of having it unfilled.

(4) This depends on the concept of 'job requirements', minimum and maximum. The 'closeness of fit' of workers to jobs may be largely objective for many jobs (qualifications, experience etc) while productivity improvement is an indice of long-term value to the firm. Workers may be qualified either greater or less than demanded by the job, or their training may have no relation to the job at all. This includes both formal education and skills, innate ability and work experience; the former - the most measurable - will be discussed here. The cases then are: a) overqualification; b) education with no relation to job; this may overlap with c) underqualification for job. Here costs are: i) long-term efficiency on the job itself - greater or less than 'normal', ii) possibly more productive alternatives elsewhere, iii) losses for a period during which a person comes to an average efficiency on the job.

In many cases, firms have fairly inflexible job requirements (whether for training purposes or because the job actually requires the 'human capital' embodied in individuals), and records of educational qualifications of applicants may be kept. Thus losses 1 and 2 should be fairly easily quantifiable; while losses 3 and 4 vary from firm to firm and

would have to be estimated, or sample studies done.

(5) Again some kind of establishment estimate would be required.

Note: Much the same procedure as described in (4) and (5) could be undertaken for existing jobs, to analyse the extent of the 'mismatch' underemployment problem in the long run - the above largely analyses the extent to which the mismatch problem is frictional (and hence to an extent unavoidable).

(6) Measures of labour turnover and mobility are required, preferably in as disaggregated a form as possible:

a) The capacity of workers to move between jobs and labour markets. This depends on the transferability of their skills and experience - occupations can be reached by transfer, promotion or specific education. A crucial variable is that of control over access to jobs - which workers will have access to specific jobs. This tends to be shared between employers and employees where both parties are trying to maximise earnings. Important research areas include: i) formal agreements between workers and employers about employment of certain types of labour; ii) agreements about hiring and promotion policies deriving largely from custom and procedure within firms (ie internal labour market structures, a prime area for intensive research and industrial case-studies); and iii) legal constraints, eg racial or residential regulations.

b) The willingness of workers to move, given the opportunity. This could be estimated by taking a sample of the labour force, confronting

workers with a variety of job offers, and noting responses. In South Africa, of course, worker choice is constrained by legal and other factors.

c) Actual moves, whether between firms, occupations, industries and geographical areas, between employment and unemployment, and in and out of the labour force (OECD, 1968: 91-3). These could be included in standard labour force or unemployment surveys, or establishment, industrial or manpower surveys.

(7) To an extent, all the above relate to job information - how well jobs are filled depends on how much workers know about them, and how firms search for suitable workers. Some questions which arise are:

a) What sort of knowledge requirements about job vacancies should there be? Given that vacancies were empty on a specific date, that the firm was trying to find persons to fill them, and that they were available to persons outside the firm, specific requirements might include: i) the occupational title and number of persons sought; ii) sex, if relevant; iii) minimum years of schooling acceptable; iv) minimum years of experience acceptable; v) earliest starting date possible; vi) how long the vacancy has been open (distinguishing between 'frictional' and 'true' vacancies); vii) the current or proposed earnings in the job vacancy (see Myers & Creamer, 1967: 170-1; Barker, 1983: 37-39). Data acquired should probably vary according to level in the occupational structure.

b) How is labour market data distributed at present? Research would involve investigating how workers find out about jobs, whether via

labour bureaux, relatives and friends, visiting potential employers, written advertisements, etc. It could be combined with workseeker or labour force surveys, highly disaggregated by workers' personal characteristics (race, sex) and by education, occupation and industry.

This would also require information on search for workers by firms: which channels do they use for what kinds or grades of workers? Why? What are their hiring procedures? What characteristics are they actually looking for in workers, and what 'screening' procedures do they use in the process? Do these procedures vary regionally or between large and small firms? To what extent do firms make use of internal labour markets? Do large firms hire workers on an 'actuarial' basis, recruiting new employees on the basis of anticipated turnover and growth? What are the implications of these questions for labour market functioning?

For example, a recent study in the Eastern Cape suggested that larger firms with some market power (and often organised trade unions) tend to have effective internal labour markets and stable wage structures. Firms raise productivity by on-the-job training, and their 'screening' criteria include age, stability, reliability, experience and sound employment records (Gilmour & Roux, 1984: 36-7). 'Informal' information networks (family, friends, word-of-mouth) are used to obtain candidates for lower-level positions (McCartan, 1984: 13), and de facto preference is given to applicants with contacts inside firms. ILM's as recruitment areas lower screening costs, ensure workers are familiar with what will be expected of them, and provide some control over new employees (ibid, 7-8). This makes it difficult for outside workseekers to get jobs and excludes more marginalised workers (the young, women, workers who have

changed jobs) who are pushed into the low-wage competitive sector.

c) What (differential) access do people have to labour market information? The existence or collection of data is not equivalent to its distribution - for a variety of educational, cultural, communicational and class reasons, individuals facing work possibilities hear of them via what appear to be fairly rigid information systems biased in favour of some and against others. The poor are often situated completely outside such systems (eg illiterate, can't afford newspapers, have friends and acquaintances only in poor jobs, etc).

A number of operational questions come to the fore: are there cheap ways in which job and worker information can be centralised or decentralised more usefully for the parties concerned? How could employer and vacancy data be distributed more widely at a local (town, district etc) level, to reach more potential employees? How could access to job and labour market data be improved for workers whose access is most limited at present? (see Hansen & Radwan, 1982: 24)

South Africa

In South Africa, state intervention in the labour market takes various forms, what Simkins (1981: 21) describes overall as an "administratively imposed disequilibrium". He suggests labour markets don't merely adjust to market conditions but are "consciously administered" within a geographically segmented economy (ibid, 22-3), such that massive African incomes differences are created between commercial agriculture, mining and domestic service, and manufacturing.

The principal state policy instrument is the labour bureau/labour allocation system. African workseekers without urban rights are supposed to register at bureaux in their home areas and the labour offices will then allocate workers to employers as they choose; alternatively, workseekers permits are issued. According to the 1965 Labour Regulations (as amended), the bureaux are to regulate the supply and demand of labour, matching appropriate jobs with available workers (Riekert Commission, 1979: 35). This does not happen at all efficiently (see Gilliomee & Greenberg, 1983; Hofmeyr, 1984: 25-29). The Riekert Commission has suggested that permanent urban African labour be developed through stable employment, training and higher incomes, while rural areas be kept as sources of cheap labour (Hindson & Lacey, 1983: 98-101, 112); employment service operations are being directed almost exclusively at the former.

If anything, then, the lack of fit between workers and jobs in South Africa is very closely related to macro-level state policy (see Chapter 7) which seems unlikely to change in the near future. 'Marginal' improvements to the system may, however, be possible.

4.1.3 THE LONGER-RUN SITUATION

The above discussion is essentially short-run, measuring a 'frictional' component of labour market inefficiency - what can be termed job underutilisation. Over a longer time-period (say more than three months), the position is far less deterministic. On the one hand, firms have to train, recruit and retire workers under conditions of variable product demand and technology, and firm manpower policy is thus an object of

consideration. On the other hand, the problem of labour underutilisation comes to the fore.

For firms, basic labour options can be depicted as follows:

i. Real labour scarcities exist in certain areas, or seem likely to appear in the near future.

How do firms try to resolve impending bottlenecks? Do they, in response: i) increase overtime work; ii) increase recruitment or recruit more widely; iii) employ temporary, seasonal or part-time labour; iv) increase subcontracting; v) undertake internal training; vi) lower hiring standards; vii) introduce labour-saving machinery; viii) fragment jobs and hire less skilled labour (say); all with or without raising wages? (see Carmichael, 1981: 164, 177-9)

Firm tactics, of course, are likely to vary according to expected changes in demand for labour at different levels of the occupational structure. Lower-level vacancies might simply require more part-time or overtime labour, while those higher up might require more widespread recruitment or internal training. Indeed, one interesting area of research is whether labour is being trained by firms to fill higher-level vacancies and new jobs. Where this happens, is it in-plant/formal/on-the-job training? How firm- or job-specific is such training? What would the loss to the firm be if workers left after training?

An important problem in South Africa is that of shortages of unskilled labour in very unattractive jobs. Given the existing labour allocation

markets to measures of the underutilisation of labour, the social ills caused by lack of access to work-incomes, and so on. Sometimes, however, conceptual tools may be deliberately selected to yield particular results, especially when the areas concerned and concepts used are politically important (Sabot, 1977: 1).

Secondly, government statistics come from an apparatus of power, and can be expected, consciously in some ways and unconsciously in others, to reflect that power.[1] At a very general level, "information on any subject tends to reflect the importance which governments attach to it" (ILO, 1979b: 1); statistics cover areas affecting and of use to the state and the interests which have a strong say within it. In a strongly capitalist society, commodities may be researched in great detail while the poorer sections of the population are ignored: hence housing prices and manufacturing product mix might be covered rather than problems of underemployment.

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1. It has been argued that government statistics, acquired and wielded as per a specific structure of political interests, will have "a single ideological framework underpinning the concepts and categories used" (Miles & Irvine, 1979: 113). While this is possible, it seems to imply a more necessary unity to state behaviour and action than is the case in the United Kingdom (about which Miles & Irvine are writing) or even South Africa. It seems more fruitful to begin with the assumption that the capitalist state is divided, not fundamentally, perhaps, but certainly on practical issues, and that its output will tend to reflect that fissuration. For example, quite substantially different lines about development, industrialisation and labour might be found within the state. A degree of unity is undoubtedly present, however: one would not expect to find a Marxist analysis emanating from a branch of the South African state, or not for long at any rate.

The extent to which this 'division' is likely to affect state programmes of data collection is dependent on the decentralisation/regionalisation of state power and planning activities, on the locations of the statistics-producing apparatus(es) within the state or branches of the state, and so on. The closer the ties and the less decentralisation, the more uniform the ideological framework of the output will tend to be.

"Everywhere you go now, questionnaires.
They know every detail of your affairs.
Oh so many people's lives, wrapped up in those
Statistics, statistics, figures on a page,
Statistics, statistics, numbers on a tape.

"Everywhere you go now, you're in their sight.
Yes, they classify you, into black and white.
Oh so many people's lives, wrapped up in those
Statistics, statistics, keep you up to date,
Statistics, statistics, sign of the modern state."

- Manfred Mann, 'Somewhere in Africa'

CHAPTER FIVE SOUTH AFRICAN LABOUR STATISTICS

5.1 Introduction: Statistics as a Social Product

5.1.1 STATISTICS, GOVERNMENTS AND POWER.

Statistics are often presented to users as objective, revealed truth; immaculately conceived facts undefiled by rude values or ideology. But the production and analysis of statistics - especially by governments - is not simply a technical matter. Indeed, it will be taken for granted here that all 'facts' and statistics are value-laden and subject to criticism.

Firstly, the concepts and definitions used in any form of collection of data always affect the final results. For example, one's definition of 'unemployment' may lead, when tested on similar populations by entirely honourable researchers, to results varying from say 8% - 30%. In most such cases, it appears the concept 'unemployment' has been used in very different ways due to differing (de facto or de jure) operational definitions, measuring anything from rigorous job search in formal labour

such as Region D, and decrease it from 'better off' areas such as Region H) It seems, however, that the present system of migration is basically a fairly rigid political parameter constraining regional planning, now and in the future.

3. How will the planning as between regions conflict with that by regions? Presumably overall regional priorities will be set up centrally (prioritising regions) and within that structure, regions will attempt to plan internally.

4. Finally, there are questions of the relation between regional planning and industrial decentralisation. It appears the latter will be determined by the South African government in conjunction with the 'national states' and will thus be a predetermined datum for regional planning, though some flexibility may be possible. For example, whereas industrial decentralisation policy aims at developing and geographically redistributing formal sector jobs, perhaps policy and finance should be channeled into other more effective development activities such as creating temporary jobs via public works programmes; at any rate, comparative costs and benefits should be calculated.

iii) perhaps the methodologies employed in research should be similar between regions, even where the timing, regularity and even purposes of research differ.

All these points present problems, for example trying to collect data for regions spanning 'national states' (particularly regions D and E), implying either 'supra-state collection and co-ordination' (which is politically problematic) or close coordination between different collecting bodies within regions (politically difficult and highly impractical).

2. To what extent are the RDAC's to take present economic and political structures as fixed? For example, is it taken for granted that present legal restraints on labour mobility within and between National Development Areas cannot be changed in the near future (influx/efflux control, restrictions on housing)? If this is the case (as is exceedingly probable), it means 'insider-outsider' and other differences between Africans are likely to frustrate regional planning, as the primary causes of rural degradation and deprivation will not fall under the scope of RDAC planning. In such circumstances, rural planning for 'outsiders' and urban planning for 'insiders' may be completely different processes.

Labour migration could also be an area of development-oriented intervention. Is the present 'free market' migration system (as determined to a large extent by administrative practices, The Employment Bureau of Africa etc) to be left as it is at present, or could efforts be made to channel migrants from deprived areas or regions into migrant jobs? (for example, by actively trying to increase migration from worst-off areas

development activities (for example industrial decentralisation and the Development Bank).

Some questions about the Regional Development Advisory Committees are as follows:

1. How independent from South Africa and the various 'national states' will these committees be and to what extent will they have the power to plan regionally? In fact, given the present 'national state' structures and dispersal of (formal) political power, is it even possible to plan regionally? Will they be compelled (according to their sources of finance, membership and powers) to basically plan according to the needs of South African capital and the South African state, or will they have some regional autonomy? This will be closely related to the sources of the finances and resources for planning implementation, whether from regions themselves, 'national states' or the South African government.

The above question of course affects the nature of research to be done. Ideally, regional research should:

i) be reasonably compatible between regions so results can be aggregated to reveal the national picture and help in the determination of inter-regional priorities;

ii) at the same time, regions should be as autonomous research-wise as possible in the interests of specifically local requirements (for example, different data-needs between the PWV region and the Eastern Cape-Transkei-Ciskei region) and efficiency;

revised and decentralisation incentives have been increased (du Toit, 1982: 255; Zille, 1984: 12-13). Eleven deconcentration points and 49 industrial development points (of which 28 are in 'national states') have been designated thus far, "to counterbalance the existing metropoles" (Department of Foreign Affairs & Information, 1982: 270).

THE REGIONAL DEVELOPMENT ADVISORY COMMITTEES

The major agents of regional planning, it seems, will be Regional Development Advisory Committees (RDAC's), one per region. Some have already begun functioning on a small scale. These have representatives from the public and private sectors of the parts of South Africa included in the region, and will liase with the 'national states' in the region through the Departments of Foreign Affairs, Constitutional Development and Planning, and Co-operation and Development, all of which have RDAC representation. These regional committees are apparently intended to plan and implement projects for the benefit of each region.

According to the Department of Constitutional Development and Planning, RDAC functioning and planning has two levels:

> "The first category is of an overall nature and relates to development differences and to the determination of priorities between the different regions. Objectives in this category include the promotion of economic development, the combatting of unemployment, a more even geographical distribution of development and the provision of basic needs. The second category is directed more towards the micro level, and concerns the development potential and bottlenecks of each region" (1983: 6).

It seems uncertain, however, exactly what these RDACs will do, what powers - real or advisory - they will wield in the future (they have no powers at present), and how they will link up with other official

Information, 1982: 268) - these being regarded as 'purely economic' rather than political criteria[1] (Hirsch, 1983: 5).

The ultimate objectives of regional planning are said to be:

> "the provision of the basic needs of populations in the various regions of Southern Africa within the time horizon of the generation with special emphasis on personal consumption needs and basic public services. This entails the synthesising of regional goals of economic growth, employment creation and poverty-eradication according to the needs of specific regions" (du Toit, 1981b: 358; he was then a senior planner in the Economic Planning Branch of the Prime Minister's Office).

An order of precedence between regions has already been established, apparently on the basis of: i) the need for employment creation in regions, closely related to current and expected future unemployment rates; ii) the need for higher living standards, as determined by the level and distribution of income within the region; and iii) the region's potential to satisfy its own employment needs in the future through economic growth (Department of Foreign Affairs & Information, 1982: 269). Region D (Eastern Cape, Ciskei and Western Transkei) has the highest priority, while Region H (the Pretoria-Witwatersrand-Vaal Triangle area) has the lowest priority.

An important complement of regional development planning will, of course, be the industrial decentralisation policy. This has been

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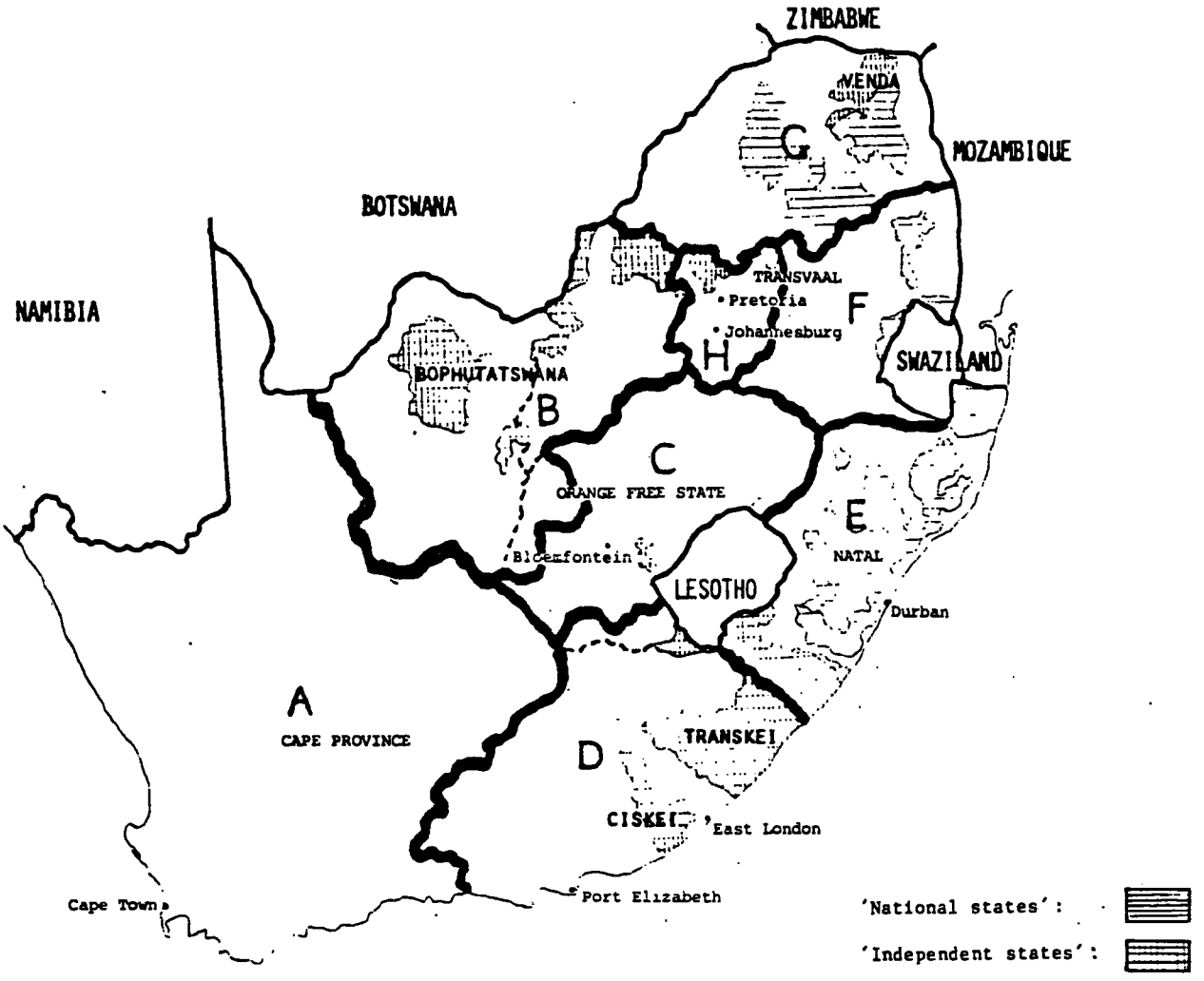
1. It is uncertain exactly how the regions were designed and to what extent they were in fact politically rather than 'functionally' determined. The overall regional framework is obviously political - it seems impossible to plan geographically-defined regions in a non-artificial fashion when so many households span regions (migrant labour) and population movement is severely restricted. This is a form of 'illegitimate isolationism': abstracting a problem from its social and political enviroment and presenting it as a 'technical' problem subject to a 'technical' solution.

Map 1 National Development Areas in South Africa



National Development Areas (as of January 1985):

A. Western Cape Province

B. Northern Cape/Western Transvaal/Bophutatswana

C. Orange Free State/QwaQwa/the District of Thaba Nchu of Bophutatswana

D. Eastern Cape/Ciskei/the southern part of Transkei

E. Natal/KwaZulu/the northern part of Transkei

F. Eastern Transvaal/KaNgwane/parts of Lebowa and Gazankulu

G. Northern Transvaal/Venda/parts of Lebowa and Gazankulu

H. Pretoria-Witwatersrand-Vaal Triangle/KwaNdebele/a part of Bophutatswana

PART TWO

REGIONAL LABOUR PLANNING IN SOUTH AFRICA

INTRODUCTION REGIONAL PLANNING IN SOUTH AFRICA

The ultimate focus of this report is regional labour/manpower planning. This chapter briefly summarises what the government has been saying and doing about regional planning in South Africa, and its implications for regional research. This will provide a background to discussing the possible regional uses of currently-acquired labour statistics in South Africa in the following chapter, and the suggestions in Chapter 7 about additional data sources required for regional planning.

Regional planning in South Africa, as opposed to development of the African homelands or industrial decentralisation policy, is relatively new. Glaser (1983: 177) traces its origins back to South Africa's National Physical Development Plan of 1975, but in its present (January 1985) form, regional planning was unveiled by PW Botha at the Good Hope Conference held in Cape Town late in 1981 (Hirsch, 1983: 5), and its importance and precise role seems as yet undetermined. Eight regions - called National Development Areas - have been demarcated, including South Africa and both 'independent' and non-independent 'national states' (see map on next page). They are sometimes quite complex; Region D, for example, spans South Africa, Ciskei and Transkei. It is claimed the National Development Areas have been demarcated on the basis of "development needs, development potential, functional relationships and physical characteristics" (Department of Foreign Affairs and

4.5.3 APPROPRIATE TECHNOLOGIES

The state could take a lead here:

i. Research-wise, regarding new local technologies and established appropriate ones in other LDCs, and ensuring information about technologies is distributed to interested parties;

ii. Through macro-incentives aimed at modifying factor pricing, supplies and exchange rates, and moving sectors of the economy in a labour-intensive direction.

iii. Through labour- and local technology-intensive provision of infrastructure (eg roads, housing etc).

The links between the above points can be illustrated by reference to two case-studies from Kenya. Langdon shows that the Kenyan soap market has been taken over by high-cost capital-intensive products unsuitable to local needs and with low employment effects (1975: 14-26). Simple local soaps meet needs more cheaply and effectively, but "energetic MNC marketing activity" undercuts local production by creating demand and reshaping tastes in the direction of expensive, luxury soaps. He suggests strict government intervention, banning certain products and restricting MNC marketing practices. Kaplinsky argues that MNC marketing deliberately misinforms consumers, for example about the nutritional values of breakfast cereals (1979: 96). In this case, high-income products are produced by local firms forced to adapt to foreign, inappropriate technologies.

largely by low-income individuals/households and isolating the most labour-intensive methods of producing them, within a certain range of competitiveness and profitability. Very often products determine technologies used to produce them (Kaplinsky, 1979: 90). Research on how and where the poor spend their income, and whether appropriate products could not replace more capital-intensive or expensive ones is also necessary. Where this is the case, such products and simple cost-effective production techniques could be researched, and structures developed to pass such knowledge on to appropriate producers, especially informal sector enterprises (see Allal & Chuta, 1982: 119-120).

On the supply side, state interventions could include tax remissions or subsidies for enterprises producing products for low-income groups, including food, clothing and furniture. Another strategy would be to restrict the production of, or ban, highly inappropriate products - for example powdered baby milk (Stewart, 1983: 290). Alternatively, the state itself could intervene in production (Gunasekera & Codippily, 1977: 51).

On the demand side, basic education could be used to improve purchasing skills of people in all income groups, advertising could be regulated to ensure a larger share for low income products, possibly by subsidies and prevention of misleading advertising[1], and technical standards for products could be lowered (Baron & Van Ginneken, 1982: 685-6).

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1. State intervention into the traditionally unregulated advertising domain would be crucial in ensuring labour-intensive products at least get a 'fair hearing' in the consumer market. This might help counter the 'demonstration effect' of poorer households emulating the consumption habits and patterns of the rich.

was decreed necessary, by which "whatever can be produced by small an cottage industries must only be so produced" (Allal & Chuta, 1982: 63) Large-scale firms were legally restrained from producing certain items sometimes prevented from increasing capacity, and levied on certai items produced (for example textiles) specifically to raise funds t develop small firms. This programme appears to have worked surprisingl well in providing labour-intensive jobs and incomes to large numbers o people, at the cost (to an extent) of entrenching low productivity an lack of competitiveness (ibid, 62-3).

The informal sector ultimately depends largely on the income elasticit of demand: where low incomes are raised, the informal sector an labour-intensive production should be stimulated (Kitching, 1982b: 82) Its demand is ultimately a derived demand, closely related to the struc ture of demand and production in the economy. It can accordingly onl flourish where, in addition to the above, appropriate products ar encouraged and appropriate technologies are stimulated; its developmen may also require land reform and active state efforts at making th distribution of income more equal.

4.5.2 APPROPRIATE PRODUCTS

This is an important corollary to the above analysis and component of basic needs strategy: as many products as possible should be 'appro priate' to the incomes and needs of the bulk of the working populatio (Stewart, 1983: 279).

Research requirements include investigating which products are consume

ded as a low-cost 'miracle worker' in providing the poor with jobs (McCarthy, 1982: 2). For on its own it provides no panacea to any country's internal development needs. As Kitching argues for Kenya:

> "With the significant but still untypical extension of a narrow stratum of employers and self-employed in certain occupations, the so-called 'informal sector' in Kenya, just as in other parts of Africa, is a collective description of a motley assortment of activities which the reserve army of the unemployed undertakes in order to keep itself alive whilst waiting and hoping for the economic system ... to provide the more remunerative occupations which will make upward mobility a possibility" (1982a: 405).

Furthermore, it is often argued that the formal and informal sectors are complementary, such that they can be developed together to everybody's benefit; this tends to be the position of the World Bank and other international development organisations (see World Bank, 1978: 6, 23). It appears, however, that there may be a direct trade-off between the two, such that the survival and size of the informal sector is a direct function of the extent to which the formal sector is constrained (eg regarding advertising, technology, items producted, taxation etc)[1]. Where this is not done, small-scale production may only be expandable at the cost of much reduced incomes and employment conditions (Danson, 1982: 263). Moreover, in an economy like that of South Africa where restraints on large firms are few and far between, it is very possible that most segments of the informal sector may not be directly competitive with formal sector firms in the long run, offering at best super-exploitative survival prospects for the very poor.

In India, in developing small-scale production a 'reservation principle'

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1. This form of the 'infant industries' argument has often been suggested of post-colonial African countries in which it is argued small local firms can only prosper if foreign firms are prevented from entering the country.

4.5.1.2 Researching the Informal Sector:

i) How big is the informal sector? How many enterprises are there, how big are they and where are they situated? What do they produce? Which strata have scope for development?

ii) How many people work in the informal sector, at what wages? Personal characteristics: age, sex, education and so on.

iii) Needs: capital, credit, licenses, technologies.

iv) How productive is labour? Does the informal sector provide on-the-job training; does it use outside skills?

v) To what extent is it subordinated to the broader capitalist economy: raw materials, markets, sources of skills?

vi) How is it connected to labour migration and unemployment? (Nattrass, 1982b: 71-2)

Informal sector research, however, is expensive and difficult: no universe exists, activities and conditions of production vary widely between enterprises, smaller enterprises are difficult to find and survey, written records are often lacking, some engage in illegal activities, and so on (Ward, 1983:128). Furthermore, cross-section questionnaires are often clumsy and not effective in analysing complex issues like long-term growth potential (Schmitz, 1982: 442).

The problem with the informal sector is the ideological (and economic) role it can play in justifying minimal resources being put into large-scale basic needs-oriented economic development - it tends to be regar-

Regarding the latter issue, Sandbrook (1982: 171) provides an analytical typology of informal sector producers as follows:

a) Petty capitalists. These are small industrialists lacking credit and hampered by government regulation and intense competition, predominating in services or distribution rather than straight productive employment. This is the main area in which the informal sector can be a site of advancement of those without much hope of formal sector promotion (Mazumdar, 1981: 236).

b) The marginalised labouring poor, including:

i. Petty producers, apprentices and journeymen. These use some skills and capital (eg tailors, carpenters);

ii. Petty traders and petty services, the largest stratum of the informal sector in LDCs, including many women. Such enterprises have no permanent facilities and don't hire regular labour;

iii. Casual labourers, varying between casual employment, self-employment and open unemployment;

iv. The 'lumpenproletariat' - criminals, beggars, prostitutes.

The first category would be easiest to develop via conventional development strategies (provision of capital and credit, marketing channels, reformed administrative regulations). There is less hope for petty producers, and truly innovative development initiatives would be required for the other categories.

stressed by many advocates of small business in South Africa (see for example du Toit, 1981a: 172; National Manpower Commission, 1984: 42-44; Black & Clark, 1983: 38-40).

By contrast, Leys (1975: 266-9) argued the informal sector in Kenya was simply the lowest stratum of wage-earners in the economy, functional to the formal sector for which it provided cheap goods and labour. If encouraged, the informal sector might help people obtain some poor jobs due largely to its 'self-inflationary quality' - the more people involved, the greater the market - but for the majority of people it would simply ensure the perpetuation of poverty. Efforts to encourage it would be unlikely to succeed: it is structurally disadvantaged vis-a-vis the formal sector, and in the long run, if the informal sector was flourishing in a particular branch of production, the formal sector would be likely to move in and undercut it using advanced technology and a much higher productivity of labour.

The truth is probably somewhere between these points of view. There are indications that the informal sector is not as employment-generating as was once thought, especially during recession (Sethuraman, 1981: 33), and tends not to expand very much with government deregulation; it does appear to be structurally disadvantaged and can't compete with advanced mass-production techniques and advertising (see Schmitz, 1982: 437-8), but sometimes operators can carve out niches where capital would find participation unprofitable (eg very low income products, advantages of location, small or specialised markets and services). The informal sector is also divided into various sectors and occupations, some of which have different scope for development from others (ibid, 442).

4.5.1 THE INFORMAL SECTOR

4.5.1.1 The Informal Sector and Development

According to Portes, "The concept of informality may be defined as the sum total of income-producing activities in which members of a household engage, excluding income from contractual and legally regulated employment" (1983: 159). This broad definition avoids tedious debates about what the informal sector is and where it ends, and includes rural subsistence agriculture, rural crafts and a variety of small, unregulated urban enterprises.

The ILO report on employment in Kenya noted that the informal sector provided 28-33% of African urban employment, and suggested that it could be a major agent of income redistribution and more appropriate forms of production if suitably encouraged. Incomes were low, not only because the informal sector tended to aim at a very poor market, but because such enterprises were 'blocked' from expansion by official discouragement and the lack of modern sector demand, credit and markets (ILO, 1973: 226-9). Policies to stimulate it and permit it to function legally could have a beneficial effect on the poor, the distribution of income and the economy as a whole.

Other theories of developing the informal sector stress weaknesses 'internal' to firms preventing them from surviving or expanding. These include lack of management skills, poor entrepeneurship, 'cultural' factors and so on (see Schmitz, 1982: 431-2 for an analysis; he notes that these explanations are often tautological in nature). These are

and concluded that good 'market intelligence' prevailed among people in his sample (1978b: 59).

Similarly, attitude surveys could be done of school children, school leavers and university students: how close is their estimation of job wages, working conditions and qualifications required to reality? How aware are they of career options available? are they biased against (skilled or semi-skilled) manual careers? are they looking for high-status jobs? which? What sources of career information and guidance are available to them, and how could they be improved?

Industrial education and training could be investigated in the light of the above: how much is there? how much should there be, bearing in mind the people available for such courses and the needs of the economy? is it quantitatively or qualitatively deficient compared to scholastic/academic education, in terms of comparative costs and so on? Do scholars and workers see this as being the case?

4.5 Associated Areas of Research

These do not fall directly under the rubric of labour or manpower research, but a clear understanding of them combined with a thorough data base is necessary as an input into a development strategy revolving around basic needs and the employment of the very poor in the economy. These areas are designated as particularly important objects of policy by the ILO (see section 1.2.2).

employees, or simply through limiting workers' abilities to search for better jobs?

Are job qualifications for 'good' jobs rising without commensurate increases in responsibilities, income etc: "a top to bottom displacement, or bumping process, which thrusts a large number of workers at each level down into jobs below their qualifications and expectations" (ILO, 1979c: 24). This can take place as result both of employer strategy (ie raising job qualifications), and labour market exigencies, whereby more educated individuals apply for and accept employment 'below' their qualifications, thereby implicitly raising the schedule of correspondence between jobs and qualifications (JASPA, 1982: 4-5).

What is the relation - if at all - between the expectations of the educated (whether school-goers, employed or unemployed) and reality? A recent survey including all these groups observed that "there seems to exist a remarkable belief, on all levels, in the education system as a means of deliverance from unemployment" (Gilmour & Roux, 1984: 29); while this may be individually rational, it can lead to a long-term economic imbalance of increasing educated unemployment.

Little is known about the capacities and aspirations of the educated unemployed in these areas. How are they educated or qualified? What type of jobs are they looking for? (as what? in what industry/sector?) Are they looking for any job, or for a specific job? Have they been offered any jobs thus far? Why did they refuse? What is their expected wage? Their preferred wage? Their reserve wage? Simkins for example found reserve wages close to those offered in an unemployment survey,

qualifications, or some kinds of 'productivity' criteria (even if crudely defined)?

iv) Finally, is it the quantity or quality of education that matters? Are jobs allocated on the basis simply of schooling and qualifications achieved, or are schools and educational institutions ranked on the basis of quality or prestige. Do people acquiring or with education at present realise this?

c) The Problem of Educated Unemployment. The 1971 ILO Mission to Sri Lanka noted a wide imbalance between the expectations of the educated and jobs available (Thorbecke, 1973: 399); individuals were acquiring lofty job expectations unlikely to be fulfilled (see JASPA, 1982). This seems the case in South Africa due to economic stagnation and the considerable recent expansion of primary and secondary education among blacks, particularly as the current expansion of 'white-collar' or other highly-prized jobs does not appear to be very rapid (Schneier, 1983: 65-6). Schneier concluded that the relative demand for African labour with Std 6 - 10 exceeds supply at the moment, but that at a secondary school level disparities are small and falling steadily (128). For many school-leavers it becomes worthwhile to queue up for such jobs as do exist. Others are unable to find reasonable work in the formal sector at all (they may be considered 'overeducated', or require further industrial training), while some resort to poorer or informal sector jobs.

How rapidly are 'good' jobs increasing in number compared to 'poor' jobs (in the sense discussed in Chapter 2). Do past poor jobs held harm future job prospects, either by negatively influencing firms hiring

Who tends to have access to such funds? It certainly seems they would be highly biased in favour of whites.

b) Testing for 'screening' empirically:

i) For some categories of work, investigate worker hiring processes through management and personnel surveys;

ii) Research on representative areas of the occupational structure, to examine actual intra-firm job-filling processes. For example, hypotheses which could be tested include:

The poorer the job, the more its identity and remuneration tend to be defined in terms of job rather than employee characteristics;

Job security tends to be lowest for poor or secondary jobs in the economy;

People who might be competent (experience, age etc) but whose formal qualifications are limited, tend not to be allowed access to better jobs, or even to processes of worker recruitment for jobs;

For many jobs, qualification levels are used, not to identify competence, but to reduce the number of job applicants for particular posts (ie a direct kind of rationing procedure) (JASPA, 1982: 199).

iii) Alternatively, it might be possible to measure the premium gained by workers for formal qualifications - for example in firms with fairly rigid wage structures, to examine how wages change when additional certificates are gained, and whether this would be likely to affect actual worker productivity or effort. Are salaries and wages linked to

studies' of firm behaviour. They would also be most useful when integrated with data from other surveys about such firms.

Which workers have been fired, laid off, voluntarily left jobs recently (say in the last 3 months to a year)? How long had they been working in the firm? If laid-off, when does the firm expect them to be taken on again, if at all? what jobs were they filling, what occupation, what were they paid? do the jobs still exist (ie vacancies, or with other incumbents) or have they been terminated? what qualification did the job require? If jobs have been filled since, how long did it take? What were the personal and educational particulars of the job leaver?

It would also be desirable to know about 'illegal' employment (which jobs did such workers fill, where were they from, how were they educated, what were their wages etc), but it is hardly likely such data could be gathered.

4.4 Education and Training

Various analyses of the role of education in the labour market have been delineated in Chapter 2, with substantially different policy implications for development planners in each case. The dominant theoretical trends were compared as human capital theory, and SLM and 'screening' theory.

a) What opportunities for 'betterment of human capital' are available in South Africa (for all 'racial groups')? Can money be borrowed to finance 'self-investment'? Are alternative sources of funds available?

employment? why did they leave their jobs - had they been hired on a temporary basis, did they resign, were they retrenched or were they fired due to unsatisfactory personal performance?

ii. Their present situation. How are they educated? what skills have they? have they any income-generating capacity at present? (eg casual labour) what other income sources do they have? These might include UIF benefits, other income earners within the family (some household details would therefore be useful - size, number of wage earners, if married, whether wife/husband has a job, other non-wage income), subsistence production. Do they register for UIF? and if not, why not?

iii. Uniquely South African characteristics. For example: race, urban status of individual (and household, perhaps), place of residence and legal residential status, type of dwelling etc.

iv. Job search and expectations. How long have they been without work? How have they been looking for jobs? Have they been offered any jobs? at what wage? why were they refused? what is their reservation wage? Job aspirations and expectations could be related to age, sex, levels of education, race and work experience.

Researching firm behaviour and unemployment:

An important complement to surveys of unemployed workers could be surveys of firms, to investigate how they contribute to unemployment, which workers are at risk, and which tend to be hired first. These would be complex and expensive and could perhaps only be done as detailed 'case-

unemployment; ii) the total number of unemployed people; iii) who becomes unemployed; and iv) alternative income sources available to unemployed workers. Knowledge requirements are essential in analysing these areas - who becomes unemployed? why? what effects has this on poverty and the distribution of income?

It is important to investigate the speed at which people flow through unemployment (Armstrong & Taylor, 1983: 312): some groups may become unemployed more often but for shorter periods, while others might occasionally be precipitated into long-term unemployment, and individual costs may rise as duration rises, causing unemployability through employers preferring more efficient and trainable new employees or school-leavers (Standing, 1978: 120-1). There can also be a link between the level and average duration of unemployment (ILO, 1979c: 33), for example unemployment for females and the unskilled lasts longer than average, especially during recession.

For research purposes, the unemployed might be questioned:

i. About their work experience. Have they had a job/jobs before, in the past year say? Was it a 'formal' job with a regular income, which they had held for a reasonable period of time? What work did they do? in what occupation? In what firm was it? how large was the firm? what industry? what area? how much were they earning? If they have only had seasonal or temporary jobs in the recent past, similar but more general questions could be asked.

Regarding previous work, did they have legal rights to work in such

iii. The processes by which job vacancies are allocated to labour bureaux, and the effects of company/firm preferences upon the final result. Why and how are these preferences formed? This would probably require management surveys of hiring, promoting, training and firing procedures, combined with data on turnover and absenteeism.

iv. Examining incumbents of 'comparable' jobs in the labour market.

c) Causes of Segmentation

It is necessary to examine not only the fact of market segmentation and discrimination, but also its causes - who segments, how and why? (Fields, 1980: 13-14) This analysis is essential if poverty effects of segmented labour markets are to be countered, especially by the state (via anti-discriminatory legislation, reserving jobs for discriminated-against groups, or simply by improving labour market access). Forces operating here might include:

i. Consciously 'political' - eg the Industrial Colour Bar;
ii. Consciously economic - eg white trade unions, 'statistical' discrimination, urban labour preference;
iii. 'Social', eg racial discrimination on racist grounds;
iv. 'Stochastic', eg people who live near labour bureau offices getting a greater proportion of jobs than those from far away.

4.3 Unemployment

The seriousness of unemployment is a function of i) the duration of

b) Heterogeneity of outcome of access to jobs among 'comparable' workers as function of group in the labour market.

Individuals might have unequal access to jobs and, more broadly (especially in South Africa), to labour markets through which labour is channeled into jobs. This could lead to research of various kinds:

i. Africans with urban rights are given preference in access to jobs, probably leading to lower rates of unemployment among them. Various other forms of group discrimination along the lines discussed above are also probable. Historically, of course, this has been used along racial and sexual lines to exclude workers from jobs via Colour Bars and so on; these days legal restrictions are often more subtle, sometimes in the form of 'closed shop' or other such agreements.

ii. Given fixed access of individuals to bureaux in their region (ie the geographical-political region served by that labour market) and fixed numbers and types of jobs allocated to each bureau, how are people chosen to fill jobs? In particular, how and why are certain people/ groups/areas discriminated against, de facto and de jure, differentiated according to probabilities of getting 'good' (eg manufacturing) and 'bad' (eg white farms) jobs? At a broader level, this could be extended to job search in general, to find out, for example, whether migrants are disadvantaged if they come to cities in search for jobs, whether it is rational for them to accept temporary jobs in the informal sector, and measure comparative costs/ benefits of illegal migrancy compared to penalties (fines, prison).

conclusions were weakened (31-40).

iii. A possibly crucial segmentation variable is stability of employment. For wage-workers, this can be approximated by the probability of remaining employed multiplied by expected wages in the foreseeable future, and pension benefits likely to materialise, all also related to positions in internal labour markets. Useful indices of this could include: pensions, UIF contributions, lay-off pay, job contracts preventing summary dismissal, etc. This could also help define 'good' and 'bad' jobs in the sense described earlier.

Where on-the-job training and experience is important, ILM's may be informal and unstructured, simply giving some workers security against being fired first by firms, as against other more fragile workers. For Natal, a survey by Sitas et al suggests that certain 'crucial' workers tended to be granted higher wages than others, even during periods of depression, and not be fired; these would usually be "stable (long-service) workers and skilled or semi-skilled workers", with long-service de facto coming to correspond with skill (1984: 42).

Another version of the above method compares lifetime job rewards at entry into the labour market as between individuals, as differential job rewards may include access to further training and experience. This would involve collecting lifetime work and earnings histories of workers, and capitalising them to the beginning of their work careers (ie extensive 'tracer' statistics). Data needs here are probably excessive, as regular surveying of the same individuals over a long period would be required for this method to be acceptable.

viii. Access to transport and infrastructure.

ix. Type of housing.

Income level and these factors are mutually determining; only empirical research could test which is the more important. It seems, though, that area of residence, being determined to an extent by Group Areas and other regulations, could perhaps be regarded as an independent variable for our purposes.

For researching these issues, reliable data would be required on:

i. Human capital differences between workers (education, skill levels, as well as job training, experience or intelligence). Some could be measured or reliable indices obtained without too much research (eg education and experience) via labour force or wage structure and distribution surveys; others not, and the 'missing variable' argument could be taken as 'lack of proof' of the above approach.

ii. Data on income and wage levels - poor, erratic and inaccurate in South Africa, especially for Africans. Only with suitably reliable (wage and extra-wage) data could such a project be undertaken. Alternatively, firm and labour bureaux sources could be used. Scharff (1981) has revealed the data problems experienced here: based on a sample of Labour Bureau records in Durban, he investigated whether migrant workers were channeled into lower levels of the urban job hierarchy, as compared to workers with residential rights in Durban. Due to data constraints, he was unable to test rigorously for segmentation (of wages or jobs, say), other things (education, skills etc) held constant, and hence his

might encourage discrimination to raise their incomes, as has been done by the conservative white trade union movement; racial and sexual divides have also been used to undercut worker organisation, introduce new technology and so on[1].

iv. Problems of distance and lack of access to widely dispersed labour markets, as well as lack of infrastructure, housing and transport (for a Natal example, see Sitas, Stanwix & Shaw, 1984: 50-55).

v. Enterprise differences - eg size, number of employees, capital use, profits etc.

vi. Industry and occupational differences.

Analysis of the latter two points should proceed with care; to an extent they reflect choices by individual workers (Fields, 1980: 69), and the market may be eliminating some of these differences in the long run; the point is that these choices are taking place within strict constraints and there is virtually no scope for meaningful choice for workers going through labour bureaux.

Possible dependent variables:

vii. Area of work or residence.

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1. Racial discrimination can work in other ways closely linked to the labour market, due to the functioning of a racially-biased state bureaucracy and system of distribution of knowledge. For example, most studies have shown blacks to have less (de facto and de jure) access to unemployment insurance than whites; furthermore, many migrants are excluded (McGrath, 1983: 181-2).

labour force could be stratified by this variable, and, after human capital/skills differences have been accounted for, separate earnings functions estimated for each group.

Probable segmentation 'groups':

i. Africans with urban rights, commuters, requisitioned African workers (Scharff, 1981: 31f), 'illegal' migrants. In general, "State policy is that insiders should have the first choice of modern sector jobs - requisitions for contract labour are not approved unless employers have made the case that they cannot recruit on the local labour market" (Simkins, 1981: 25), leading to a relatively privileged class of urban 'insiders' (ibid, 26) and rural poverty. This also leads to wage discrimination between legally present and 'illegal' outsiders. Most studies indicate considerable occupational and income differences between blacks with permanent residence rights in South Africa, and those without, for example:

> "Individuals who have no rights to permanent residence in an urban area will not only be more likely to be employed lower down on the occupational hierarchy than permanent residents but their chances of promotion are far slighter ... Blacks with permanent residence rights in urban areas are miving into more skilled occupations where shortages occur ... Workers without these rights will continue to be employed primarily in less skilled occupations" (Schneier, 1983: 109).

ii. Men and women. Sexual differences have been found to be a central and consistent determinant of income differences by Moll (1984: 7-10) and James (1984: 9-17).

iii. Racial discrimination (see Knight & McGrath, 1977). White workers

while there is not too much room for the state to manoeuvre,

> "Through adequate investment policies, shifting investments between sectors and technologies, labour demand can to some extent be structured in line with the composition of the labour force; through adequate educational policies, labour supply can to some extent be structured in line with the composition of labour demand" (1982: 199).

This level of planning will not be dealt with here.

4.2 Poverty Implications of Labour Market Structures

It has been argued above that - quite apart from inequalities in preparation - labour markets tend to be biased in favour of some against others, in terms of access to jobs, high wages and good working conditions of otherwise comparable people, whether deliberately (eg political controls on labour markets), due to the needs of technology, capitalist hierarchy and control, or simply at random. This problem is likely to be exacerbated by the particular features of labour markets in LDCs (migration, poor information and job-search channels, a low modern sector demand for labour) discussed in the second half of Chapter 2.

Analysing labour market segmentation in South Africa could be fruitful, but has considerable data needs. Pre-market segmentation has been documented to an extent in the past (eg unequal education), while in-market segmentation includes:

a) <u>Heterogeneity of (income or job security) outcome among 'comparable' workers as function of group in the labour market.</u>

Given a group-defining variable independent of income (eg sex), the

examine how firm's new investments are affected in the decision-making process by labour-market conditions: i) in which areas or occupations do firms most feel labour constraints (whether regional, skills-wise etc)? ii) do labour market conditions affect regional siting of plant and other firm investment decisions?

Some of these questions could be investigated via extensions of or supplements to normal industrial surveys or censuses. New jobs created: in what areas have jobs been created in the near past (say 1 year)? In what industry, occupation? What levels of skills are required? What wages are paid? Who is the occupant? (sex, race, age, education, experience etc) Where did the labour come from? (in/outside firm, promotion/transfer, home area, migrant status, how was it hired?) Some of this is already computed overall (eg new jobs in firms) and would require more disaggregated data.

But furthermore, there should be far more research on the link between profits, capital and new investments, and jobs and wage-levels (see Hansen & Radwan, 1982: 141), in areas like depreciation, occupational structure, types of new investment, new technologies and labour productivity, types of labour hired; again linked to geographical/spatial criteria. In these fields, considerable reformulation of existing data-sources would be required.

This of course verges on the terrain of long-run manpower planning, the purpose of which is to ensure that long-run demands and supplies of labour, and of various types of educated labour, are in reasonable accordance with each other. In other words, as Hansen & Radwan stress,

cyclical changes in economic activity, and also for 'underutilised' labour in internal labour markets. The problem here is that the relation between capital and labour hired may be relatively flexible if firms operate with excess capacity for much of the time; current labour hire might depend simply on conditions in the product market.

It has been suggested that capital has progressively been substituted for labour in the workplace in South Africa over the recent past, particularly in agriculture, mining and certain leading secondary industry sectors (Southall, 1982: 25). This is often related to government policy (eg the old Enviromental Planning Act), shortages of labour (eg the mines in the mid-1970s), shortages of skilled labour in manufacturing, the use of foreign technology (often via capital-subsidies) and so on (see Parsons, 1979: 14-17). If true, very little is known about this trend, its causes and factors affecting it, and whether it is likely to continue in the foreseeable future.

The second question would require data on job restructuring and differentiation in firms. Are more 'good' or 'bad' jobs being created by firms? and how rapidly? Such indices could be compared to existing jobs and past experience, and the supply of labour available to fill new jobs (Papola, 1980: 145). While weak, criteria like skills, education, experience, remuneration, working-hours, usage of skills and position in hierarchy could be used.

Firm tactics vis-a-vis labour could be researched here, to introduce labour-market and bargaining measures into consideration of firm's processes of job adaptation and restructuring. It could be interesting to

system, labour bureaux may function per excellence to selectively channel labour between areas to prevent upward pressures on wages. How do firms respond to such pressures (according to size of firm, region, industry etc)? - through requisitioning more labour, local recruitment, possibly with higher wages, through hiring temporary labour, through improving jobs and skill levels, through hiring 'illegal' labour?

Research could be done to examine relationships between wage levels for jobs with predominantly migrant occupants and labour requisitioned by firms, both applications, acceptances and jobs finally filled, as well as direct investigation of the dynamics of labour bureaux.

ii. Firms are planning, or in the process of, active reorganisation of the labour force, and associated labour needs (technology is changing).

Two broad questions are: a) is the firm's marginal employment increasing or decreasing (ie is more labour of various types being hired, or is capital displacing labour in the most recent areas of capital use/job creation)? b) how are jobs changing and being restructured? These questions have important employment implications for state regional and industrial policies.

The first could perhaps be measured by comparing new investments over the recent past to the rate of job-creation; in this way a 'simple' estimate of changing labour needs and 'marginal' costs of creating jobs could be obtained. Of course, this is exceedingly difficult to measure - depreciation, the 'value of capital' etc - but perhaps a marginal capital: labour ratio could be derived, allowing for seasonal and

Statistics are power to those who control and use them; the statistical hegemony within society of the modern state is one of the crucial means by which its power and legitimacy is perpetuated. Statistics are distributed by the dominant classes and the state via control over media in such a way that politically significant aspects tend to be disseminated and emphasised, while different or opposing statistics die a quiet death on dusty bookshelves. Bondestam (1975: 42-3) argues this for African countries, and further suggests that strongly 'unsatisfactory' results are not generally 'changed' or modified, they simply remain unpublished.

The importance of official statistics is that the state apparatuses from which they emanate give them meaning and ideological perspective. 'The statistics prove that things aren't so bad after all!' As Bondestam puts it,

> "Are most statistical figures so vague that they can be turned and twisted to support opposing ideologies and views? Probably not, but too often the wrong figures are chosen at the wrong time, at the wrong place, for the wrong purpose - by the wrong person. It is finally the politicians who give the concluding version and meaning of a figure or a table" (1975: 50).

Different state apparatuses, however, have different roles regarding the production and dissemination of official statistics. Some are formally or predominantly 'technical' (eg the South African Department of Constitutional Development and Planning) and have only a subtle ideological role; others are quite clearly predominantly ideologically inclined, and it tends to be that as statistics are transmitted from the former to the latter they are adorned suitably and presented to a dazzled populace.

Users often regard government statistics as apolitical and objective, an illusion reinforced by their being published as page after page of 'value-free' tables and figures, often with a very brief 'technical' explanation. Only when they or other statistics are used against the statd does the state term them 'political' - see, for example, PW Botha's antagonistic Parliamentary response to the Second Carnegie Conference on Poverty and Development in Southern Africa:

> "It is a pity that an occasion which could really have been used to carry out an in-depth search for answers to our real problems in South Africa and in the rest of this poverty-stricken continent, to a large extent degenerated, due to political overtones and ideological prejudices, into a denigration of South Africa's political system" (House of Assembly Debates 27/4/84, column 5355).

The only conference paper which was praised by government dealt with incomes in the African 'national states' (Simkins, 1984) where a clear effort was made to 'co-opt' apparently favourable results to reinforce state homeland policy.

Statistics can thus play a crucial role in bolstering state ideology. And only when the ideology begins producing too many unexplained 'effects' (for example political struggles by the dominated classes) is there any real questioning of the ideological role of such facts, a realisation that the 'facts' aren't necessarily correct or meaningful.

Finally, the actual producers of statistics have their own interests to think of and might omit details of the weaknesses of their data and the extent to which it is untrustworthy. Results could even be deliberately falsified, 'massaged' (Government Statisticians' Collective, 1979: 148) to become more palatable, or be presented in such a way that disconcerting figures are aggregated or 'adjusted' (wiping out seasonal or other

variations) to fit in with preconceptions or what is desired.

At a more mundane level, problems sometimes creep in when processes and techniques are applied. Bored clerks may transcribe figures incorrectly, computers make mistakes, printing errors happen. At another level, whole procedures may go awry over a period of time, but if faults are corrected, discontinuities are created in the statistical series provided.

5.1.2 GOVERNMENT STATISTICS AND 'REALITY'

Government statistics certainly aren't neutral, unbiased sources of knowledge about the 'real world'. Some left-wing writers take this view to a naive extreme and regard them as ideological 'smokescreens' expressly designed to obscure what's actually happening out there (see Irvine, Miles & Evans, 1979: 3). This view misinterprets the role of the modern state: official statistics usually aren't consciously designed by those in power to fool the populace into thinking things are better (or worse) than they are, and the 'conspiracy' theory of how statistics come into being seems generally incorrect. In fact, a primary role of government statistics is to produce information of use to the state and capital, and they usually have some scientific content.

Ethnomethodological sociologists on the other hand regard statistics as subjective or 'interpretative' (Benson & Hughes, 1983: 7-9), the results of individuals (interviewers, coders etc) assigning cases into classes in an arbitrary or erratic fashion. In practice, however, and especially for economic statistics, individual decisions depend on training and

the organisational processes and circumstances under which such people work, and are thus strongly dependent on implicit or explicit theories of social processes, most of which can be allowed for by would-be users (Miles & Irvine, 1979: 119-120). Furthermore, as techniques and definitions used are improved and made more thorough, the proportion of doubtful - and hence arbitrary - cases should decrease, and the resultant data output should become more accurate and reliable.

In a nutshell, it is suggested here that government statistics do tend to bear some (albeit mediated) relation to 'reality', however defined, and can have considerable value, although they need to be treated with great caution. They are a production, the result of a process by which groups of people in certain organisations and certain positions, using various concepts and methods, produce a given output, and an understanding of this process can reveal how and where the results can be trusted.

Moreover (and more pragmatically), in many cases they are the only ones available as only the state has the resources to provide regular statistical coverage of most areas of society, and it is necessary to come to grips with them to learn anything of these areas.

5.1.3 OFFICIAL STATISTICS IN SOUTH AFRICA.

In South Africa, most government economic statistics are produced by Central Statistical Services (CSS) which is highly centralised in Pretoria; that is where the conceptualisation and analysis takes place. CSS seems influenced more by 'modernisation', a desire to conform to international (Western) standards, general economic practices and sheer

inertia than the desire to produce any specific political impact[1]. There can be little doubt, though, that the coverage and bias strongly favour the status quo.

Given the constraints, CSS does a reasonably thorough and honest job. There appears to be some awareness of the weaknesses of existing statistics amongst the professional officers (although officials tend naturally to be defensive), an interest in what outside researchers are doing and an eagerness to improve data available[2].

Furthermore, the major reason why data is late or overdue, why so little detailed material is published and why there is such sluggishness about changing programs, appears to be, not lack of desire or an attempt to conceal, but staff shortages. According to the 1982 Report of the Department of Constitutional Development and Planning, less than 43% of the (then) 95 professional posts were empty, and only 48% were "suitably filled" (1983: 3, see also 16-17). These vacancies are a major bottleneck to CSS operations. The Department is apparently trying to upgrade these positions and attract more qualified people.

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1. This appears to be the case even with the controversial productivity issue; figures published undoubtedly and incorrectly blame workers for low productivity (note the methodological errors discussed by Meth (1983b)), but don't seem to have resulted from consciously political decisions by policy-makers. There are, however, effectively politically selective processes at work about which statistics are published when: for example, regular national unemployment figures based on the Current Population Survey are published with much fanfare but little in-depth analysis or qualification, while the more detailed and obscure figures when they eventually appear allow some very different analysis (see section 5.3).

2. Of course, such understanding and self-criticism of produced statistics does not necessarily extend to other state organs, the main users of its statistics.

It is worth noting the smallness of Central Statistical Services - that is, the lack of resources presently channeled into planning and collecting government statistics, especially non-status series. Compared to some other countries at similar levels of development and with similar populations, the number of employees and statistical series seem very limited. Direct comparisions are invidious but interesting: Sri Lanka's Department of Census and Statistics had 165 professional staff in about 1980 (Karunatilake, 1980: 541) and apparently was understaffed, while the Australian Bureau of Statistics had a total of 3 700 staff in 1976 (Ironmonger, 1977: 695). Both, however, had considerable decentralisation of data-collection operations, by state (Australia) and district.

The statistical problem in South Africa may thus centre around the allocation of resources within state structures and departments and the low priorities which historically have been assigned to the collection of statistics for economic planning in this country, especially planning designed to meet the needs of the majority of the population.

5.2 Analysing South African Labour Statistics

Issues of employment, underemployment and poverty should be a central input into any poverty-oriented development strategy. For planning purposes this implies the acquisition of extensive labour market information about the employment-related problems discussed in Chapters 2 - 4, to investigate the link between work and welfare, improve poor jobs, ensure people without work have a livable income, allocate re-

ces between industries, regions or firms, maximise job-creation and so on. This is particularly the case for regional planning where regions are being planned as semi-autonomous entities and the effects of overall planning policies and ground-level projects both need to be monitored.

One possible approach to labour market information in South Africa would be to use the ideas about labour markets and planning already discussed to determine what 'ideal' statistics on labour should be collected, to examine the statistics to see what is collected, and then compare the two. This could be done via the ILO 'integrated' system of wages and statistics, designed to be internationally comparable and acceptable (ILO, 1979a). It recommends detailed current monthly statistics on average earnings and hours of work by establishment, annual data on wages paid and hours worked by occupation, and data every 3 - 5 years on labour cost (to employers, including all labour-related expenses) and wage structure and distribution (wages, occupation and personal details on all employees) (ibid, 38-41). This is to take place across all important sectors of the economy.

In actual fact, such an approach would be problematic as data needs are too great, the system described caters largely for the needs of developed countries and does not cater for specific LDC problems like labour migration, and the data provided in the ILO system are not suitable for all theories and practices of development.

In practice, the sources of labour and employment data examined below are those which are most detailed, generally available and most quoted by development planners in South Africa. They are produced by Central

Statistical Services (sections 5.3 - 5.6 below, including the Current Population Survey, the Population Census, and various establishment surveys or censuses) and the Department of Manpower (the Manpower Survey, section 5.7). There are of course other administrative or occasional sources which are not dealt with[1].

The statistical series are analysed in terms of five implicit criteria:

i) which areas, industries or firms in the economy are covered;

ii) the form of this coverage - surveys and questionnaires, sampling methods, etc;

iii) how reliable and accurate such coverage is likely to be;

iv) how useful the data collected is, and whether it could be improved by modifying or extending existing programmes; and

v) the utility of existing statistical sources for regional planning. It is possible data gathered could be collected or disaggregated by region and serve as an important input into a regional labour and employment planning program.

5.3 The Current Population Survey

5.3.1 INTRODUCTION

The Current Population Survey (CPS) is designed to monitor the employment-unemployment position of the black labour force of South Africa.

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1. These include provincial and local authorities, administration boards and labour bureaux, Benso and National Manpower Commission sources, and some government departments.

It was begun in late 1977 and appears to have been a state response to economic decline in South Africa 1975-76, urban revolts in 1976, international disinvestment and high unemployment rates (exaggerated at the time, somebody from CSS argued, by highly publicised unofficial studies, especially those of Charles Simkins (one version of which was later published as 1978a)). It was prepared in about 14 months (normally such programmes take at least three to five years to prepare) with a strong reliance on the United States Current Population Survey (but see section 5.3.9) and run and tabulated remarkably quickly.

The CPS will be analysed in detail as it seems African unemployment will be the single most important problem to be attacked by regional planners (see the comments in the recent Government White Paper on employment creation (Republic of South Africa, 1984: 1)). Some researchers feel that on the basis of its many weaknesses, the CPS should simply be disregarded (see for example Southall, 1982a: 20); it should rather be regarded as an important and broad, if severely flawed, information source. Some of the figures produced appear to be reasonably reliable in terms of what they set out to do, and are particularly applicable to the 'modern' sector of the economy.

5.3.2 THE QUESTIONNAIRES

The CPS comprises two questionnaires administered monthly to African, 'Coloured' and Indian households spread throughout South Africa. The first is devoted to household data (largely for fertility and mortality

estimates), and is not of much interest here. The other is the employment questionnaire, and investigates questions like: a) whether people worked in the past week, and if so, their occupations, industries and wages, b) if people working short hours want more work and have been trying to find more work; c) if people didn't work in the previous week, why not, whether they want work and how long they've been looking for it, and d) whether people have worked before, and if so, when, at what, and reasons why they left.

For Africans the CPS was begun in October 1977, for Coloureds in July 1978, and Asians in September 1982; it is hoped a similar effort for Whites will eventually get off the ground. (This was planned for September 1983, but postponed due to manpower problems.)

5.3.3 WHAT IS PUBLISHED?

Statistical News Releases (SNR's) produced by Central Statistical Services are the main source of CPS data. The most regular of these are P27.1, 27.2 and 27.5, covering Coloureds, Africans and Asians respectively. They focus on non-economically active and economically active members of the population, especially the unemployed, by sex, and are produced at quarterly (until 1984, monthly) intervals a few months after the relevant month has been surveyed. This data is also reproduced in the quarterly CSS Bulletin of Statistics. At less regular intervals, data on worker occupations and industries and the age distribution of the unemployed is provided.

On 8 September 1983, the first of the P. 27.3 series appeared. It

dealt, for Africans, with similar items to the above, but provides data broken down by each of the eight National Development Regions; the same will be done in due course for Coloureds and Asians. It covered August 1982 - January 1983; others have been produced since.

Report RP 07-07-01 on the CPS for the period 1979 - June 1981 was published in July 1982 (CSS, 1982b). For Blacks and Coloureds, by sex, it had a detailed breakdown of: a) worker occupations and industries; b) hours worked and reasons for working short hours; c) qualifications of the labour force; d) unemployment details: whether urban or rural, methods of work search, time unemployed, reasons for leaving previous jobs, education; and e) details of the non-economically active population: when willing to accept work, months without work, previous occupation, reasons for leaving previous jobs, etc. CSS hoped to have something similar to Report 07-07-01 published dealing with industries, occupational distributions and with a detailed breakdown of unemployment figures (age, qualifications, details of work wanted, etc) on a regional basis, by June 1984.

In many instances in the above sources, only percentages are published; this is unfortunate as it's often useful to know the (raised) numbers as well - they can't always be worked out from data in the reports.

5.3.4 THE SAMPLE

5.3.4.1 Survey Techniques and Weaknesses

A two-stage cluster sampling system is used, covering the whole of South

Africa except 'independent' national states (see Vivier, 1979). Samples are currently organised as follows:

Africans: 600 enumerator's subdistricts, covering about 18 000 dwellings and 70 000 people; current sample introduced in May 1982.
'Coloureds': 150 subdistricts, 4 500 dwellings, 18 000 people; sample introduced in August 1982.
Asians: 150 subdistricts, 4 500 dwellings, 18 000 people; sample introduced in September 1982.

For Africans, in the first stage of sampling, 600 subdistricts are demarcated with roughly equal populations. In the second stage, 'clusters' of 30 households are selected within each as the sample. This process is thought to be statistically representative for South Africa as a whole.

A part-time enumerator is chosen for each subdistrict, preferably a primary school teacher, otherwise a clerk from the local Administration Board or similar organisation. In mining compounds, the clerks are usually from hostels themselves. According to the CPS Manual for Fieldwork (CSS, 1982a), each enumerator is to "choose ... any site in the area as a starting point and enumerate ... all the households (families) on that site" (ii). Every second site thereafter is to be surveyed until 30 households have been enumerated. If areas have a degree of local spatial homegeneity in terms of income and living standards and enumerators choose households near their place of residence, this process will tend to bias the sample in favour of their (higher than

average) income group. An official from CSS informed me, however, that in practice the initial site is chosen at random by computer, as well as the direction in which the enumerator should go. Houses on corners are avoided as unrepresentative. Farms are regarded as homogeneous - in each farming subdistrict, one is chosen and its whole population enumerated.

The enumerator visits the same households in the first half of every month thereafter for the foreseeable future, checking on household population and running the same employment survey. The month of December is excluded as atypical.

A form of quality control takes place for the CPS, with professional staff running control surveys at regular intervals and comparing their results to previous data collected. Enumerators are to be visited in this way every four months and instructed on faults with their surveys, if any. While this process has been described by Holtzkampf (1979: 47-49), no results or analysis of it have been published.

Once the questionnaires for a month have been sent to Pretoria, the results are tabulated and the population and relevant characteristics of the households are 'raised' to be representative of the population of that subdistrict as a whole. For example, if nine people out of a sample of 120 are unemployed, the sample will be raised by simply multiplying the unemployed rate (7,5%) by the population of the area as defined by the CPS techniques. In practice, this process is carried out for South Africa as a whole by urban and rural areas.

Until the dates indicated above, an 'old' sample (covering 10 000 African households and about 42 000 people) was taken in each case, based on the 1970 Population Census with fertility estimates and mid-year population estimates taken into account. Quite apart from doubts about the 1970 census (see section 5.4), the household sites for the old sample were seven years out-of-date even before surveying began, and most of its figures are subject to question. The coverage was apparently inadequate in some areas (for Africans, about 350 enumerator sub-districts were used, varying considerably in total population). Unfortunately, no details of representativeness or nonresponse (the CPS Manual (CSS, 1982a: ii) refers to dwellings which "refuse ... to co-operate"), by household or question, have been published; if, in the original samples, there were many of these for similar reasons, resulting data may be statistically invalidated. (Holtzkampf (1979: 50) indicates for the old CPS sample that there was a fairly high overall non-response rate of around 15%, varying by area.)

Many questions can be posed about the old sample. For example, Transkei ('independent' in 1976), Bophutatswana (1977), Venda (1979) and Ciskei (1981) had their populations included in the mid-year 'raising' estimates until the 1980 census results came through as the new sample, even after their separate 'independences' when they were immediately excluded from the CPS. If the distribution of any characteristics in these states differed from the national averages, the resulting aggregate figures would be incorrect, even where percentages were not affected (for example, total unemployment numbers estimates for South Africa are biased downwards in the old sample, as it is extremely probable - see

SNR P27.3 dated 2 February 1984 - that unemployment figures in these 'states' are much higher than the South African average). It is claimed, however, that this has been corrected in the new sample.

A CSS official stated that only since 1979 has the CPS produced data which is at all 'reliable'; before then it was being gotten off the ground, and its results and procedures were suspect (see Vivier, Holtzkampf, Simkins, all 1979), thus for example Report 07-07-01 on the CPS (CSS, 1982b) dealt only with 1979-81. The results of old and new samples can be compared, however, as there was an overlap for January - April 1982 (for Africans). The comparison is reasonably favourable for that period, with a relatively small difference of closure in the case of most cells in the overlap. Most labour force series measured in percentages were not affected much, as population adjustments generally have similar proportional effects on both numerator and denominator used to derive the percentage (see DP Klein, 1982: 40). Unemployment figures for example differed by a magnitude of less than 2% in most cases. This may, of course, reflect weaknesses and inadequate coverage in the 1980 census.

The raising of CPS figures is based on mid-year population estimates, themselves dependent in turn (especially for Africans) on the most recent population census, and accordingly will suffer from exactly the same weaknesses as the census. Various faults can be pointed out in the 1980 census which will make the CPS picture seem 'better' than it actually should be (see section 5.4 below). For example, the site sampling frame for the CPS is based on the census; accordingly, the CPS will have a bias towards officially registered, established residential

sites and populations; newer residents or sites will be omitted from the sample. This will especially affect economically 'marginalised' sectors of the population[1].

Furthermore, households in the sample are only changed after the results of the most recent Population Census have been processed[2], so the samples may be an increasingly poor reflection and representation of the population over the five-year period since the previous census. One cannot know whether the distribution of the unenumerated is similar to that of the enumerated (in many cases this may not be the case, for example urban squatter households newly moved from homelands), weakening assumptions about the latter over time (Mohun, 1980: 101).

The problem with the CPS sampling process is that any deficiencies in sampling methodology are likely to bias the surveying techniques 'upwards' rather than 'downwards' and omit the very poor. As Chambers (1980, especially 18-19) observes, poor people tend to be hidden and inaccessible to surveys, and if special attempts aren't made to cover them, they tend to be omitted. This would weaken the planning uses of such data as the magnitude and extent of such problems as unemployment, low labour force participation rates and low education levels would not be fully exposed.

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1. A 1979 USA Commission recommended that the US CPS (based on the US population census) should include estimates of the 'uncounted' or unenumerated population in population controls for national and state labour force estimates (see Stein, 1980: 19). This has been highly controversial because of the difficulties in estimating unenumerated people and appears to be as yet unresolved, largely because of implications for government programs and spending, much of which is de facto allocated on the basis of populations or people affected.

2. The only other changing of the sample is due to enumerator turnover, when new enumerators apparently choose 30 new households in each subdistrict as the sample.

5.3.4.2 The Sociology of Enumeration

> "The government are very keen on amassing statistics. They collect them, add them, raise them to the nth power, take the cube root and prepare wonderful diagrams. But you must never forget that every one of those figures comes from the village watchman, who just puts down what he damn well pleases"
>
> - Anonymous, quoted in Sir Josiah Stamp, Some Economic Factors in Modern Life, 1929.

As the above quotation rather polemically suggests, the acquisition of data by enumerators is always a value-filled process, and this should be allowed for by users rather than merely taking figures at face value. The CPS is no exception, and there is a particular potential for error given the following factors:

i) The interviewer's job is a part-time one, taking place mainly in the evenings, and accidental or deliberate errors or omissions are likely to appear - for example, interviewers have a job to do and may be inventive with results if necessary. (This may be exposed via the quality control programme.)

ii) Interviewers appear to be relatively unprofessional and untrained, allowing much scope for bias. For example, interviewer autonomy may lead them to follow petty bourgeois ideology in considering people to be 'lazy', 'not wanting work' etc, when more thorough questioning could reveal a very different situation. Such autonomy is increased where questions on the CPS questionnaires have to be translated into the interviewees' own languages (Mitchell, 1965:678).

iii) The accuracy of the work will be a function of the interviewers' political roles within their communities (Ibid, 682). Where they are known within subdistricts as government supporters or sympathisers, households could be less than forthcoming about demographic factors (eg illegal lodgers or family members in townships without permits) and employment (eg illegal employment and incomes, informal sector activities) (see Simkins, 1981: 35). It appears no research has been done to investigate the extent to which this is a problem and how it might affect the final results[1].

iv) Most enumerators are male and probably consistently misunderstand and underestimate the economic activities of women; this has been noted of labour force surveys in other LDC's (Anker, 1983: 710).

v) The notion of 'household survey' implies a certain homogeneity of opinion and action within the household, this usually being conceptualised as united under the benign rule of a male household head (see section 3.3.1 above). Such a formulation is simplistic: political struggles around work and income occur within households, centering, it seems, around the control of labour time of women and children. Seeking work, getting a job, earning an independent income, migrating to South Africa: all these can sometimes be major forms of resistance within households, quite apart from other more minor ones. Men may find it necessary to control women's work by constraining the above activities. This will affect both women's actual economic activities and how they

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1. Over time, however, suspicions of interviewers are likely to be alleviated if it is accepted that results will not be used malevolently (see Bondestam, 1975: 20).

report them in the CPS, especially within the hearing of other family members. It is of course problematic for economists to evaluate or get involved in household political issues, but it is naive for household politics simply to be ignored.

Many 'sociological' weaknesses of the CPS won't be exposed through quality control checks, and could only be reduced by lessening the active role of the interviewer[1] and reducing the ambiguity of questions asked (see below). They probably bias the CPS results in a particular overall direction[2], towards low unemployment rates, high estimates of the non-economically active population, low female economic activity rates, and so on. There may also be biases within the data - for example, tendencies to regard the old as retired, the young as lazy. Moreover, as the same enumerator deals with the same households from month to month, the de facto definitions used will remain consistent, giving the results a credibility due to sheer inertia.

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1. The sum total of all this has been termed 'interviewer effects' of questionnaires: "When there exists, one way or another, a very definite relationship between the content or wording of an item, and the interviewer's socio-demographic characteristics" (Hagenaars & Heinen, 1982: 107). They discuss the examples of sex, race, age and social status.

2. This is not acknowledged or discussed in any of the articles on the CPS in du Toit, ed (1979). Holtzkampf says teachers and clerks were chosen as interviewers because they were known to and trusted by the population (1979: 46); he seems not to notice the political, practical or ideological problems involved in picking semi-autonomous interviewers from a specific strata of the petty-bourgeoisie.

5.3.5 HOW USEFUL IS THE DATA GATHERED?

5.3.5.1 Introduction: Conceptual Issues

The CPS has a highly 'Westernised' approach to labour utilisation and the concepts and questions used in the questionnaire are often not applicable to South African conditions. Hindess has discussed related problems regarding India's 1951 Agricultural census. He argues that bad conceptual preparation there led to faulty and misleading results - made worse by a burden of choice being put upon enumerators. As he puts it:

> "The census categories treat as capitalist an agrarian system in which capitalist production relations play a subordinate role. An effect of this error is that the census categories are specified in commodity terms so that non-commodity elements in the agrarian system must be misrecognised or ignored. Thus, the census categories do not distinguish commodity relations (ie, production of goods for sale, wage labour etc) and, therefore, fail to differentiate between capitalist farming (commodity production, wage labour), petty commodity production, subsistence agriculture and the various transitional forms" (1973: 37).

This applied particularly when households were assigned into categories of rentier, peasant, wage-labourers etc. As a result,

> "in the present example the census categories, together with their corresponding instructions and elaborations, constitute what, with slight exaggeration, may be called a theory of the elements of the agrarian situation in India - a theory which can be shown to be seriously misconceived. The census figures are a product of this 'theory'" (ibid, 38).

This would be likely to have serious effects on any agricultural development or job-creation programmes based on census data.

Now as with this Indian Census, implicit in the South African CPS is a strongly First-World theory of work and economic activity. This need not be an "explicit and well-defined theoretical basis for the selection

of categories" (ibid, 40), in other words a rigorous theory. It can be ad hoc, "a conceptual instrument with little rational coherence. Nevertheless, it remains a system of concepts with determinate relations of hierarchy and subordination between them" (ibid).

It appears the central theoretical assumptions behind the CPS can be summarised as follows (note that this is a version of the labour force approach to labour supply and unemployment discussed in section 3.1.1):

1. Commodity production dominates the whole economy via the price system;

2. People are either full-time participants in the labour force, are unemployed and looking for work, or are completely outside the labour force (with a strong implicit identification of 'labour force' and 'modern sector of economy');

3. A clear distinction can be made between 'economic' and 'non-economic' use of time;

4. Labour markets are flexible and highly developed. Free movement of workers in search of jobs is possible.

Where a questionnaire taking all this for granted is applied to an economy in which this is not true to a greater or lesser extent, a variety of non-technical, qualitative errors which are difficult to analyse and correct for (especially ex post) are likely to creep in. Under 'normal' circumstances, response error, or the difference between the uniquely true value for each possible response (indeterminate of who asks the question, and why) and the observed value, is easy enough to

estimate and correct for, and interviewer behaviour can usually be controlled. But where categories themselves are inappropriate, this is nonsense: there can be no 'correct' results from which survey results can deviate. For example, capitalist concepts applied to pre-capitalist India (Hindess, 1973: 35-7) and market economy concepts applied to use-value subsistence production or an economy in which the mobility of labour is legally constrained, are all likely to lead to error. The points below argue this in some detail and explore its implications.

5.3.5.2 Defining the Labour Force

The kingpin of the CPS Employment Survey is a simple and misleading question, "1. Did you do any work or earn any money during the past 7 days?" These terms are not defined, though a number of problem cases are mentioned in the Manual:

Yes: people who have jobs but are on holiday, people who work in family businesses without pay, people who "sell ... fruit, beads etc on the pavement".

No: people on pension, "housewives", those who are unemployed and looking for work (CSS, 1982a: 13).

The above is a poor 'filter question'[1] (Anker, 1983: 711), not only because it is actually two questions conflated into one, but also because no definitions of the terms are provided. The question thus

1. In this respect, an even poorer question, slightly later, is "Are you a seasonal/rotation worker?"!

depends on how interviewers or interviewees interpret the concepts, which is unlikely to be uniform. For example, in Kenya an identical survey was run in two similar areas asking about 'jobs' in the one case and 'work' in the other. In the first survey, female labour force estimates were low as many respondents did not consider unpaid family work to be a 'job', while they were much higher in the second survey where a large number of respondents considered housework to be 'work' (see Jelin, 1978: 261n4).

Furthermore, the treatment of non-commodity production/production for own consumption is poor. As Anker puts it,

> "among the Third World poor virtually all adults and most children engage in 'economic activities' to help the family to meet its basic needs; much of this work occurs outside of the market-place ... it is not so much whether men, women and children are or are not economically active, but how hard they are working and what they are doing ... There cannot be one correct definition of labour force activity, as a simplistic distinction between labour force and non-labour force activities must be ambiguous and arbitrary for subsistence activities" (1983: 714).

A CSS official stated that food-related subsistence activities engaged in by rural households (such as tending vegetable gardens, cultivating fields, herding stock) should be regarded as 'work' and people active here should be included in the labour force. It is unlikely that this actually occurs when the CPS questionnaire is applied in rural areas; it seems far more probable that people carrying out such activities, especially women, are regarded as 'non-economically active' (for example, being classified as 'housewives'), especially where they see themselves as being economically inactive and where their agricultural contribution is less time-consuming than their domestic duties. (See Chapter 6 for further discussion of these questions and an empirical

case-study.)

In general, women's activities tend to be disregarded or underestimated in the CPS, like most other labour force surveys. The reasons for this are partly ideological (much work performed by women is unpaid, or simply regarded as 'women's work' and hence unimportant) and partly practical (women's work is difficult to measure, especially by men, and can only be thoroughly investigated via detailed time-use surveys). One author suggests that these factors have clear political effects: "in our view, official statistics are clearly used to conceal women's real contribution to economic life", and thereby justify and further women's oppression (Garabaghi, 1983: 659).

In allowing for women's work, of course, one problem is what exactly to cover: should one include only commodity production for pay, or should the definition be extended to incorporate various forms of use-value production, time spent cooking food and domestic activities as well? All these, as noted earlier, reduce costs of household reproduction and thus have important economic effects; any analysis of the possible participation of women in development projects would have to take them into account.

Anker (1983: 714-5; see also ILO, 1982b: 42) proposes that LDC's should measure four separate labour force definitions:

1. The paid labour force - people in wage or salary employment.

2. The market-oriented labour force - 1 plus people engaged in family

labour farm-type activities, in which production is centred around sale of commodities produced.

3. The ILO labour force - 2 plus all workers in activities producing primary products (which should then be included in the United Nations national income statistics), especially food-related activities.

4. The extended labour force - 3 plus all workers in activities designed to meet family basic needs, including collecting fuel, carrying water, making and mending clothes, etc.

He suggests the measurement problem in the latter two cases can only be overcome by asking specifically about the activities described, preferably along time-use lines but perhaps combined with a key-word filter. When this was done in a survey in India (see ibid, 716-19), it "revealed a far higher level of female non-wage activity for the family than did a simple /comparable/ 'key-word' question" (720). In South Africa, work along these lines (see for example sections 6.3 and 6.4 below) would probably reveal much higher economic activity rates than at present, especially for African women, and more people working less than full-time days (according to the CPS, only 0,8% of African men and 6,9% of African women worked between 5 and 35 hours per week in June 1981 - see Table 6.11).

For the developed economies, these issues are explored in Goldschmidt-Clermont (1982). She observes that all evaluations of domestic labour - as per definition - are imputed and hence artificial (36); to omit them from national income and other calculations, however, is even more unrealistic, especially when an active planning policy is under con-

sideration.

5.3.5.3 Underemployment

No explicit focus on 'invisible' underemployment appears in the CPS. Due to the 'Third Worldish' situation of many Africans covered by the CPS (for example, where no real channels for job search exist, where many families survive by ad hoc casual labour and involvement in the informal sector, where there are legal prohibitions on labour mobility and rampant racial and sexual discrimination), it can be argued that the simple division into 'economically active' (including unemployed) and 'non-economically active' people according to proximity from the labour market is not helpful. While the unemployment measure should be refined as much as possible for purposes of consistency and utility, supplementary labour force indicators should also be derived, to measure aspects of labour underutilisation other than those covered in the stringent unemployment definition.

Various approaches based on income, productivity and time-used have been discussed in Chapter 3; these should be refined and tested in the South African context, especially for rural development purposes. Fortunately, however, the data covered by the CPS is quite wide and detailed, hence some of the results could be used to obtain proxies for some aspects of labour underutilisation (see section 5.3.6 below).

5.3.5.4 Unemployment[1]

The CPS use of the 'unemployment' concept is restrictive. The unemployed include only people who definitely want work, have worked less than 5 hours in the previous 7 days, have tried to find work in the previous month, are able to accept a position within one week, and are aged, if male, 16-64, and if female, 16-59[2]. This definition is in close accordance with the four assumptions behind the CPS posited above in section 5.3.5.1.

Lynch claims this conforms to the "key points of the definition" of the international standard definition of unemployment (1979: 18; see also the explanatory notes to each CPS release). In a formal sense this may be correct, but it fails to allow for modifications and refinements in the concepts used in trying to analyse the economic position of labour in less-developed countries.

Some problems with the definition are:

i) The notion of 'work', which, as suggested above, is likely to be interpreted in a fairly limited and inconsistent fashion;

ii) The desire for work criterion. The CPS asks people who did not work in the past week, their reasons for not working. The precoded

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1. The robustness, assumption-sensitivity and usefulness of the CPS unemployment definition are explored at some length in Chapter 6.

2. This criterion is confusing. The age limits were spelt out as persons who "Are between the ages of 15 and 64 in the case of men or 15 and 59 in the case of women" in all CPS releases using the old sample (see the early SNR's, P. 27. series) until April 1982; thereafter all persons who "Are 16 to 64 years old in the case of men or 16 to 59 in the case of women" have been included (my emphases).

reply options include attendance at educational institutions, "duties at home", "cannot find any work", "resting, will look for work later", retired and so on. While a detailed regional and urban-rural breakdown of these answers has not been published, Simkins observes on the basis of unpublished data that far too many respondents are citing receipt of education as a reason for economic inactivity (overstated by nearly one million when sample figures are raised to population levels) (1981: 45-8), and very high numbers of women in 'national states' older than 15 have 'duties at home' - 48,4%, compared to 35,7% and 16-16,4% in urban and metropolitan areas (ibid, 49).

The reasons for these anomalies are uncertain and deserve investigation. For example, are the CPS sample households substantially better-off, and with a higher school-going population, than the African population as a whole? Are most women of working age in 'national states' classified as having 'duties at home' or as 'housewives' regardless of the work they may actually be doing?

ii) <u>The five working-hours per week criterion.</u> In itself this is not problem, and is less restrictive than similar criteria in the USA (see ection 5.3.9) and Japan (Yamada, 1981: 136), say. In any event, work-ng hours for the labour force as a whole are collected. It should imply be emphasised that a fair proportion of the labour force covered n the CPS works for less than a full day, and some workers would like ore work.

v) <u>The work-seeking within the month criterion.</u> This is at the heart f the labour-force approach unemployment definition, locally and inter-

nationally (see section 3.1.1). The problem is that the job-search concept tends to imply a demand for labour channeled via a formal labour market; this may be so only for men, for educated workers or other relatively privileged groups in the labour market. It is thus mainly meaningful where good labour market channels exist and there is a reasonable probability of getting a job through them. Where job information is poor, labour market segmentation prevails and the unemployment rate is high, the numbers of 'discouraged unemployed' (people who would like work but aren't searching for jobs as they feel their chances of getting jobs are small[1]) are likely to be considerable and their demand for work seems very valid. At present they are simply regarded as non-economically active.

A useful interpretation here has been advanced by the ILO-convened 13th International Conference of Labour Statisticians. It first gives the usual definition of unemployed as all persons "without work", "currently available for work" and "seeking work", but goes beyond this:

> "(2) In situations where the conventional means of seeking work are of limited relevance, where the labour market is largely unorganised or of limited scope, where labour absorption is, at the time, inadequate, or where the labour force is largely self-employed, the standard definition of unemployment given ... above may be applied by relaxing the criterion of seeking work.

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1. A major means of distribution of labour market information in African areas is word-of-mouth, taken by the CPS as a legitimate means of job-search. Where labour market channels are negligible and there is a depressed general demand for labour, however, it seems likely that would-be but 'discouraged' workers might not ever resort to this means of looking for work.

> "(3) In the application of the criterion of current availability for work, especially in situations covered by subparagraph (2) above, appropriate tests should be developed to suit national circumstances. Such tests may be based on notions such as present desire for work and previous work experience, willingness to take up work for wage or salary on locally prevailing terms, or readiness to undertake self-employment activity given the necessary resources and facilities" (ILO, 1982c: xii; emphasis mine).

In South Africa, for example, job-search channels are limited and labour markets are rigidly structured on racial, sexual, educational and other grounds (see Chapter 4). Reasonably free search for Africans is only really possible for that minority with Section 10 urban rights (and even here, highly imperfect labour markets and various forms of discrimination are prevalent). For rural dwellers, options are few: endless queueing at bureaux, illegal migration to South Africa, work in poor local jobs or (in some areas) jobs on commercial farms in South Africa. The number of 'discouraged' workers in these circumstances is likely to be high. In such cases, tests centering around the expressed desire for work rather than active job-search may be a more appropriate - if less 'rigorous' - measure of unemployment.

For employment purposes, the CPS excludes persons in gaol, in hospital or away on holiday; they are all regarded as (temporarily) non-economically active. For the former, this is probably a miscategorisation as most such people will be of employable age, and in fact many will be in gaol precisely because of a search for employment.

v) The availability for work within a week criterion. This is also problematic, as it can be argued that extended unemployment for many will mean the reallocation of household time such that an optimal balan-

ce between household wage-earning activities and expense-reducing activities is created. For example, women without wage-work spend time reducing the cost of reproduction of the household: cooking, carrying water and so on. They may be pushed towards an equilibrium allocation of time such that possible changes in the short-run (for example, being offered a job which must be begun within the week) are refused due to other commitments which could be flexible in the long run. Often, however, these would only be flexible with the provision of elementary basic needs (easily purchasable food, electricity and water) and certain 'social' utilities like old age homes and child care facilities (see E Klein, 1983: 189-190). Low labour force participation rates may thus simply be measuring the absence of rural infrastructure and facilities.

Furthermore, specific aspects of women's subordination should be considered. Many poor rural women might not want to go to work on local public works projects, say, because they might be effectively required to do their 'usual' housework when they get home (ie a 16-18 hour working day; see Cock, Emden & Klugman (1984: 5)), or because they might have to hire somebody to carry out their household duties (eg childcare) and earn a very low net return, or because their husbands or families might not permit them to work. The point is that such women really are non-economically active at present, but may be extremely poor and able to carry out home-based economic activities, and should accordingly be a target for economic development and included in development-oriented statistics.

vi) <u>The age criteria.</u> Many people outside the given age-limits work,

particularly children and older women, and it thus seems people in these age-groups can have valid demands for work not counted by the CPS.

vii) Conclusion

The overall problem is that the 'actual' or 'true' measure of unemployment (whatever that may mean) should not be the sole target when analysing the labour force available for development:

> "the issue is to understand and analyse current levels of labour utilisation with a view to improving the productivity of, and increasing the demand for labour (Bienefeld, 1975: 21)."

By contrast, it has seemed to a number of observers that CPS definitions and methods have been motivated more by political incentives (to produce politically acceptable results, locally and internationally) than by a desire to come up with usable data for analysis and development planning. For example, Keenan suggests that "government unemployment figures are both unreliable and fraudulent" (1983b: 35; see also Southall, 1982a: 19-20). This is probably not deliberately the case as far as official CSS policy is concerned, though i) the conceptual apparatus used certainly is biased in a very specific direction, described in the assumptions behind the CPS posited earlier; ii) the output of the CPS certainly has been used this way in the past, often by users, official and private, who have axes to grind and don't or won't understand the limitations of the indices produced. (For example, PJ van der Merwe, Director-General of the Department of Manpower, has claimed from the CPS that "the absolute level of unemployment (in South Africa) ... is comparatively low compared to unemployment rates in most Western countries" (1983: 148).)

It should however be borne in mind that definitions of unemployment are political in that definite policy prescriptions tend to accompany each measure, and are closely associated with the breadth of each definition and the extent to which it allows for groups in the labour market not covered in the strict version. For example, acknowledging and measuring say the 'discouraged unemployed', underemployed, or discriminated-against women in the labour market, implies that: i) these groups should be the objects of policy, ii) the existing labour market/employment opportunities available set-up is inadequate, and iii) quite radical government intervention/job-creation may be necessary, possibly accompanied by political change - implications which may be ideologically reprehensible or simply be far too daunting for groups in power (see Myrdal, 1961: 279).

5.3.5.5 Labour Force Participation

In a sense, part of the CPS is disconcertingly misdirected. Everybody not employed and falling outside the 'unemployment' definition above is classified as 'not economically active'. Now this is a concept with strong ideological overtones; it is normally assumed people are non-economically active because they want to be non-economically active - in other words, they freely choose to be non-economically active and hence aren't really an object for employment analysis. This viewpoint is reflected in Kantor's strictures about the problem of the South African homelands not being high unemployment rates, but remarkably low labour force participation rates based on assumed low modern-sector wages compared to real income available to Africans with rights to communally

owned land (1980: 143).

But labour force participation rates do not spring immutable from an individual's breast; they are the product both of individual choice and of state policy/legal restraints - people may make decisions, but without having much of a choice (see Loots, 1984: 20). In South Africa this is far more noticeable than in most First World countries on whose experience the CPS is based, but is fogged over rather than a focus of investigation in the CPS. (From censuses, for example, it seems labour force participation rates have actually fallen since the 1960s, which seems subject to scrutiny on both empirical and a priori grounds.) The problem, simply, is of enumerating people who might work if there was work available and they were allowed to take such jobs (or work in the informal sector, etc), especially the old, women and new entrants to the labour force.

Where this is the case, Simkins remarks that low labour force participation rates themselves should be an object of analysis:

> "Low activity rates (where they would be higher if circumstances were different) represent as much of a problem in terms of waste of human resources and of poverty as high unemployment" (1979: 82).

The purpose of employment planning should not only be to plan work for people currently unemployed as per the strict definition, but also to take into account the needs of people or poverty-groups who would work if they had the opportunity. For example, an effective way to augment rural incomes might be a public works scheme, but this might only reach women from poor households if child-care and transport facilities are provided. In short, where possible the circumstances constraining the

ability to search for jobs or to work should be changed or allowed for.

5.3.5.6 Other Problems

According to a CSS official, income data in the CPS ("last week", "last month") has been a "disastrous failure", especially for rural areas. Response rates were low, results varied wildly from month to month and aggregates are regarded as unusable. This is perhaps inevitable due to the nature of the data collected. The question asked is: "How much did you earn including bonus, overtime and commission) after deductions for tax, contributions, etc?" (last week and last month) This definition is reasonably applicable to formal sector work (though allowance needs to be made for respondent suspicions and non-response); less so for small enterprises where precise income figures are impossible to calculate or where records aren't kept, or less-monetised areas of the economy where transactions and incomes may only bear fruit over a long period, and may not be cash or quantifiable - credit, personal obligations and so on (Preston-Whyte, 1982: 43-47).

Furthermore, it seems uncertain whether the CPS is to include non-pecuniary forms of income (McGrath, 1979: 199-200); in practice it probably excludes these. There are additional problems where income is not directly attributable to individual workers, for example in household enterprises or sub-subsistence agriculture. Unfortunately this means it is difficult to draw the links between types of underemployment and work and poverty from the CPS, obscuring a crucial dimension of 'invisible' underemployment. It is also doubtful anyway whether the CPS covers lowest income groups adequately.

Finally, the CPS excludes 'independent national states' (the TBVC countries) in which much of the South African unemployment is concentrated, thus biasing resulting open unemployment rates downwards by several percent[1]. For example, assuming TBVC African unemployment rates (as per the CPS definition) of 15% in June 1982 (not unreasonable, as figures for the non-independent 'national states' are higher than the rest of SA - see SNR P27.3 dated 8 September 1983), the unemployment figures for South Africa as a whole rise from 8.6% to about 10%. This is rarely mentioned or brought into account in the literature.

It seems Bophutatswana and perhaps Venda have plans to begin their own Current Population Surveys with CSS help; this remains to be seen as they lack manpower, finance and (probably) commitment. Moreover, Kwa-Ndebele is apparently also in the process of becoming independent, and its population will be excluded from the CPS when this happens.

The vast oscillating populations of the TBVC countries make the unqualified use of employment and unemployment statistics both meaningless and perhaps dishonest in certain hands; the responsibility and culpability for poverty and unemployment are 'eliminated' by declaring such 'nations' independent and thereafter leaving them out of South African

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1. This may be exacerbated during economic cycles. Workers who are covered by the South African CPS may lose their jobs and be sent back to 'independent national states' during recessions. Thereafter they will not be reflected in the CPS as unemployed as they will be completely outside its ambit; instead, the proportion of non-economically active people in South Africa will rise.

Statistics[1]. Keenan suggests that "Bantustan" populations suffer twice over: "Not only are they expunged from South Africa's statistics, but their problems are problems of another country" (1983b: 43). This is a kind of ideological 'sleight-of-hand' - now we count them, now we don't!

5.3.6 HOW COULD THE DATA BE USED?

Despite the weaknesses of the CPS, it appears the existing data can be reorganised in various ways, to overcome or allow for some of its deficiencies, and fill in knowledge gaps about specific areas. The regional uses of this data, however, are far more limited; these will be discussed in the following section.

The following manipulations of current CPS data might be useful:

a) To include people who worked (say) 5 - 29 hours and/or worked fewer than 4 days per week, in a modified definition of unemployment. This could be correlated with categories from the question, 'Main reason for few hours worked?' to reveal interesting details about: i) people who stopped or started working (frictional unemployment), both seasonally and in relation to the business cycle; ii) firms working short-time, where firms prefer to reduce hours worked rather than fire workers; iii) people with some work who can't get more (piece-work, own business etc) - these are clearly 'visibly' underemployed; and so on. All these

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1. In 1979, for example, Du Toit blithely remarked: "Met die onafhanklikwording van twee Swartstate, die Republieke van Transkei (1976) en Bophutatswana (1977), het die grense van die Republiek van Suid-Afrika drasties verander. In sekere opsigte het ekonomiese statistieke soos bevolkingsgegewens wat deur die Departement van Statistiek gepubliseer word, bet die gebiedsverandering tred gehou" (96).

are interesting 'subsidiary' indicators of how national labour markets are working.

b) In the occupational distribution of the new sample (95 occupational categories are used; the exact assigning of individuals into these categories is probably subject to some error), category 44 includes close to 300 000 "Hawkers (own account ...), pedlars, street-vendors", most of whom (according to a CPS official) can be regarded as underemployed due to low productivity and low incomes. When combined with category 46 ("Working proprietors (catering and accommodation), cafe owner, Shebeen queen") and the category of wage or self-employment, this could provide some data about small businesses and the informal sector, although the income estimates will be less useful.

c) Details on numbers of people who aren't working and who want to work but haven't tried to find work in the previous month (an indice for the 'discouraged unemployed'), or aren't able to accept positions within one week, are potentially revealing. These are collected by the CPS but have not yet been published.

d) Estimates for frictional versus long-term unemployment could be derived from the questions "number of months work sought" and perhaps "months without work". It would also be possible to derive several indicators of the severity of open unemployment from the data currently collected. For example, separate indices could be kept on long-term unemployment (greater than six months), short-term unemployment (two to six months), and job-changers (up to two months). To add these together is often to confuse entirely separate problems:

> "A middle-aged man out of a job for a year presents a different task for government policy from a young boy out of work for a week" (Wood, 1975: 20).

One large-scale study of British unemployment looked only at people registered as unemployed for more than one year (M White, 1983). It concluded that they tended to follow three patterns: i) recurrent unemployment (about 20% of the sample), ii) 'destabilised workers', displaced from stable jobs into unemployment, and iii) downgraded workers who lost their jobs (ibid, 163-65), and suggested it may be possible to identify 'high-risk' groups of workers liable to fall into these patterns as objects of policy (ibid, 169). Similar analysis could perhaps be done in South Africa based on CPS material.

e) Workers are asked whether they consider their present qualifications above, comparable with or below their present job. This category is critically vague, but could be interesting on closer investigation. About 4-5% of workers consider themselves affected.

f) According to CSS (1982b: 2), the CPS collects employment data on all household members 10 years and older, thus possibly providing some measure of child labour - subject to the constraints about household and subsistence work discussed above.

It might be interesting to use the CPS to observe changes in labour market behaviour and activities in a longitudional fashion, from month-to-month or year-to-year (this is being done for the US CPS; see Kalachek, 1978, who also discusses the problems involved). This could be done analytically to compute flows in or out of unemployment, while

'lifetime' job experiences could be used to monitor what happens to various groups of persons, ie 'tracer' statistics.

Trends in the CPS data may be correct even where actual magnitudes are problematic. In other words, "what is being measured" may be closely related to the economic cycle and structural changes in the economy, and may give an indication of the employment position in the short run - which is lacking in South Africa at the moment - even where it may only deal with part of the un/deremployment problem. For example, CPS unemployment figures show some sensitivity to the business cycle (see eg Republic of South Africa, 1984: 23, 25), but with a considerable and increasing 'structural' component. This kind of analysis, however, is likely to be vague and without much value.

It is unlikely that detailed data or research will be published by CSS in the foreseeable future, simply on the grounds of lack of manpower and because the CPS does not seem to be regarded as a top priority. Such research could however be done by private or government researchers with the cooperation of CSS.

It should be stressed that the value and uses of the CPS cannot be ascertained at this stage simply because most of its data remains unpublished. Only when detailed tabulations on all important questions discussed above have been published by region or area, will it be possible to determine how valuable the CPS actually is, through testing for internal consistency comparing its figures to those from other sources. Until this takes place, the CPS is simply an unknown and its results

should be used only with great caution.

Some secondary research based on the CPS has, however, appeared. Loots (1984) uses the CPS to argue that some conventional demand-queueing/supply-job search explanations of unemployment in South Africa are inadequate, and suggests a combined model in which workers will queue for jobs where they can afford to and where it is legally permitted, or take the risk of illegal search. The more household support they have, the more a 'search' model of unemployment applies, while very poor households are subject to queueing only, often in bad queues (ibid, 18-20). This interpretation has interesting poverty alleviation implications, but is of course based on a privileged sample of job demands (ibid, 6).

James (1984) investigated the determinants of labour income in South Africa based on CPS data and concluded that the abandonment of racial and sexual discrimination would benefit better-paid people with jobs rather than poorly paid workers. Furthermore, improved levels of education in the economy would be likely to benefit only people in or about to enter managerial and supervisory positions in production (17-18). The CPS may be suitable for this kind of secondary analysis.

5.3.7 IMPROVING THE CURRENT POPULATION SURVEY

1. A useful improvement in the CPS would be a modification of the ideological framework within which the questions are posed. The survey should at least: i) expand and thoroughly define or eliminate the 'key-word' questions; ii) have a focus on the 'discouraged unemployed' (eg

"Why aren't you working?" "Why can't you accept a job within a week?" etc); and iii) ask about 'subsistence' economic activities.

2. The sample should be rotated at regular intervals, but with some overlap between samples to permit longitudional analysis. It is important: i) that new additions to the population of the area or new households are covered; ii) that the very poor be adequately represented; and iii) that regions be covered on a statistically sound basis, even if the sample size needs to be increased.

3. It is problematic to use teachers and clerks as interviewers. If this is unavoidable, bias and ambiguities could be reduced by: i) defining all terms used in the questionnaire in great detail, and giving lots of examples; ii) giving interviewers more thorough training; iii) having more checking of returns and - if possible - regular CPS reinterviews and reconciliation of differences with an interviewer from CSS. Survey statisticians in developing countries often argue that the easiest method of improving the reliability and precision of a survey like the CPS is to improve the method of enumeration and interviewer training rather than simply increasing the sample size (Ward, 1983:132).

4. The CPS could be checked by having a more carefully drawn up and detailed questionnaire accompany a sample of regular CPS surveys. A variety of complementary studies could be envisaged: time-use over the past few days, incomes and work-experiences over the past year or detailed case-studies of rural areas, to gain required data on labour utilisation. Alternatively, it is possible the CPS could serve as a 'minimal regional questionnaire' to identify significant characteristics

of the population surveyed, followed by more detailed interviews with fewer households. Comparison of the results of such surveys on the same households would also give a better picture of exactly what the CPS is actually measuring, and how.

5. It might also be possible to run more complete and better specified questionnaires along with the CPS ones at regular intervals (say every six months), as happens in the USA (the latter includes annual surveys of usual weekly earnings, school attendance and employment and earnings experience in the previous year); this could be done and collated on a regional basis, looking for example at household productive resources and informal sector activities, more detailed income data, household subsistence production, women's activities etc.

6. In general, it would be desirable for the CPS to collect better data on incomes. Very detailed investigation would be required to get reliable income estimates, though McGrath has proposed some basic extensions to the CPS income questions which he claims would "fill a major void in South Africa's statistics at very little extra cost of collection" (1979: 201). He suggests the questionnaire should distinguish between cash income and income in kind, while if it is decided it is impractical to measure the latter, this should be explicitly stated.

7. It would also be useful to have an estimate of total household income for the CPS sample, hence the questionnaire should have separate questions dealing with non-work-related sources of household income, for example migrant remittances, pensions and so on. The family size and

structure could be determined from the demographic questionnaire, and indices of per capita incomes (or perhaps per capita cash incomes) could then be calculated (see McGrath, 1979: 200).

8. Finally, the CPS could possibly be used to investigate labour migration. At present it collects some vague data on the spatial distribution of the population, but doesn't indicate exactly where people come from or go to when they enter or leave the area. Carefully specified questions on where people live, work and spend their time can be envisaged, possibly by a regular supplement to the CPS (eg every three or six months).

Certain broad areas in which the Current Population Survey could be improved have been discussed above. Chapter 6 critiques the current CPS methodology with reference to a case-study of a Transkei village, and analyses the usefulness of its statistics for development planning and helping to find solutions to local employment problems. A number of more concrete suggestions about how its statistics could be improved and which other studies should be run along with the regular CPS questionnaire may be found there (see section 6.8, as well as the discussion in Chapter 7).

5.3.8 UTILITY FOR RDAC PURPOSES

5.3.8.1 Data on National Development Areas

Some data on Africans has been published by National Development Area; this will be done in due course for all races, also by occupations and

industries. In their present form, however, the published CPS figures are not adequate for planning, even by National Development Area; more detailed disaggregated data or analytical work along the lines described above is needed if the regional causes and links of unemployment and poor labour utilisation are to be adequately covered.

The CPS can serve to isolate groups which are disadvantaged with regard to the formal labour market and job-search procedures. For example, a recent CSS publication (1982b) appears to distinguish, at a very elementary level of aggregation, the following problem areas: i) youth unemployment (about 60% of African unemployment measured is in the 16-29 age groups); ii) women (about two thirds of unemployed African women have been looking for work longer than six months); iii) Africans in 'national states', especially women. It could be expanded to reveal unemployment problems by industry, occupations, spatial location, educational levels, experience etc. It can also serve to illustrate certain characteristics of labour markets, for example the very low number of people looking for work at labour bureaux, and under closer analysis, could demonstrate the effectiveness of various types of job search for groups in different segments of the labour market. Such data would be particularly useful if disaggregated and analysed by region.

One major problem is the level of aggregation of data published. Data which may be nationally representative, will not be as reliable at a regional or district level. For Africans, 600 subdistricts of about 25000 people each are isolated for the sample, and a cluster of 30

households chosen within each. The degrees of freedom indice is far smaller than the sample size (as described earlier, once the first household is randomly chosen, the next 29 will not be random, and this is especially important if - as seems likely - there is a fair degree of local-level spatial household economic homogeneity, coupled with heterogeneity amongst wider spatial areas), and when highly disaggregated, by district or even by region, the data is invalid. Hence, while resultant figures may be representative to an extent of conditions within each region, that may be where the good news ends.

The same argument will apply for, say, occupational or industrial breakdowns within regions, particularly when doing so for particular age-groups or sexes. Once again, the representativeness of the sample will be much smaller than would appear from its absolute size. Thus, say, seasonal variations may be impossible to estimate by industry or occupation, nationally or by National Development Area.

5.3.8.2 Regional Planning

To an extent it seems the CPS can be used for the first purpose of RDACs described in Chapter 5, in assigning development priorities as between regions. Nattrass (1982c) has attempted an exercise along these lines for Africans, based on CPS results for April 1981. She puts forward seven goals of regional planning (including poverty alleviation, more even spatial development, improved African quality of life) (ibid, 3), and derives two main sets of indicators for ascertaining regional priorities. The first is based on employment needs: open unemployment rates, the percentage adult non-economically active population within

the region, the sum of adults unemployed and non-economically active weighted by population size, and the sum of adults unemployed and non-economically active, and children under the age of 15, weighted by population size. The 'social stress' criteria include average living levels, percentage of income earners earning below R50/month, and adult masculinity ratios (ibid, 11-17).

The deficiencies in the data, however, are considerable (see the assumptions made by Nattrass (Appendix 1 to her above paper) as well as the critique of the CPS above). Although the regions she analyses are slightly different to those finally demarcated, there is a surprising consistency about her conclusions. Regions D, E and G, for example, are clearly those in greatest need of development, and these results are highly insensitive to changes in the selection criteria used (ibid, 20).

At any rate, the above methodology could provide indicators of development priorities between regions (making suitable allowance for 'independent' states not covered in the CPS), along the lines of a basic needs approach to employment and income. Other planning indices which could be calculated include:

i) Percentage economically active household heads;
ii) female labour force participation rates;
iii) percentage married women in employment;
iv) percentage economically active household heads in self-employment;
v) percentage economically active household heads unemployed;
vi) median incomes earned by people in self-employment;
vii) average incomes of the bottom 40% of income-earners.

However, while the Nattrass approach described might help in prioritising regions, the CPS data is not powerful enough to suggest where and how planners should begin planning; that would have to await later research, both because the exact meaning and scope of the CPS indicators is open to question, and because the data is not specific enough (see Chapter 6 for an application of the CPS methodology which discusses this in more detail). Sangmeister remarks in such a context,

> "As basic needs-oriented projects are frequently composed of a large number of small, regionally confined projects, national statistical (mean) data - or data based on large administrative units - are only seldom suitable to serve as a basis for estimating the basic needs potential of planned development measures" (1983: 10).

In fact, the more decentralised and local the level of planning is to be, the more specific and detailed research and policy measures are required, and the more specific the diagnoses. Crude measures tend to lead to crude remedies[1]. On the other hand, the specificity of the local should not be used to downgrade the argument that a major cause and perpetuator of the employment and poverty problems of South Africa is the structure of the apartheid system, which may need to be eliminated as a long-run precondition[2] for solving these problems.

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1. This is a failing of many South African radicals in analysing unemployment: comments usually have an expressly political or interventionist intention, but tend to end in generalities like "For the decade as a whole african unemployment has risen from 11,8% in 1970 to 21,1% in 1981" (Keenan, 1983a: 189). Simkins' measure of two million unutilised 'full-time job equivalents" (see for example 1978a: 37-39) and variants since tend to be blithely quoted without writers having much inkling of what is being measured or what could be done about the problem.

2. The simple eradication of the apartheid superstructure is not the answer, though many appear to regard it so; apartheid, like capitalism, is not the source of all evil (misquoted from Poulantzas, 1980: 24).

5.3.9 APPENDIX: THE SOUTH AFRICAN AND USA CURRENT POPULATION SURVEYS

A comparison between the South African and USA Current Population Surveys is interesting because it is claimed the South African CPS is derived from the US one, yet the two surveys differ in important respects. Although information on the US CPS is difficult to obtain, certain secondary sources do allow an overall impression to be gained.

1. The US CPS, like the South African one, relies on 'key words' in asking the questions (eg, "Did ... do any work at all LAST WEEK, not counting work around the house?"), but with more cross-checks in case people have misunderstood the question, and some brief definitions of the concepts (including 'work') used. It also omits housework and probably some household production and subsistence agriculture (though it does ask specifically about 'unpaid work'); this is probably of less importance in the US economy than in South Africa (though not for minority groups there).

2. In the US CPS, the 'employed' are those who worked more than one hour in the previous week for pay or in their own business, or who worked more than 15 hours as unpaid family-enterprise workers, or who have jobs and were absent for 'valid' reasons in the previous week (ill, bad weather, vacation, industrial dispute, etc). The 'unemployed' did not work at all in the survey week, are available for work within a week and have been looking for work in the previous month, or were on layoff and available for work in the reference period (unless ill)[1]. All other

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1. The Japanese definition of unemployment in their version of the CPS is similar (see Yamada, 1981: 136). It has been argued, however, that

people are classified as outside the labour force (see McDonald, 1984: 8). This definition is stricter even than the South African one.

3. In addition to variations of most of the employment questions asked in the SA CPS, the US version also asks: i) why people, usually or last week, worked less than 35 hours; ii) about overtime and secondary jobs; iii) about reasons for absences from work; iv) how long people have been looking for work; v) why people could not accept jobs in the previous week, if they want work; vi) for reasons why people aren't looking for work, with precoded replies including: "Believes no work available in line of work or area", "Lacks necessary schooling, training, skills or experience", "Can't arrange child care" and so on; vii) about hours worked, earnings per hour (where applicable), etc (see schedule in McDonald, 1984: 9).

4. Since a 1979 investigation into the US CPS, a number of changes have been introduced: i) data on discouraged workers is now specially collected; ii) an "annual report on measures of economic hardship

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the Japanese survey techniques are simpler than those of the United States and are almost deliberately 'blunted' on the edges of questions which should be more direct for eliciting answers which serve as the basis for unemployment statistics. Hence it has been suggested that the low Japanese unemployment rate is more a 'statistical artifact' than 'economic miracle' (Taira, 1983: 3), as workers 'statistically move' between employment and non-economically active categories (out of the labour force), bypassing unemployment.

A reply to this article suggested that there is a much higher degree of visible underemployment (non-regular or idle workers) in Japan than in the USA (Sorrentino, 1984: 25-6), and that Japanese women looking for jobs tend to be excluded from the unemployment definition (ibid, 24). This can be observed during recessions by steeply falling female labour force participation rates coexisting with only slightly higher unemployment rates (ibid, 26). Both of these arguments might apply to the South African CPS.

resulting from low wages, unemployment, and involuntary part-time work" based on the CPS is prepared; iii) a detailed program of investigation on the unemployed is being begun, in terms of reservation wages, earnings in prior jobs, types of job sought; iv) employed respondents are asked whether they have begun a new job in the last month, and if so, whether it was by job changing, new hires, or another method; v) a supplement on occupational mobility in the previous year is prepared (see Stein, 1980: 13-14).

5. The US CPS sample is rotational and thus more powerful than the South African one[1]. Households are in the sample for eight months out of each 16-month period (in two 4-month 'blocks'), then they leave it permanently. One eighth of the sample (a "rotation group") is changed every month. After the first interview, households may be contacted by telephone (about 50% of total returns take place this way); the South African version of face-to-face interviews may be better here. The US sample is also randomly selected at the local-level, again unlike the South African one. The US CPS gives details of response rates and refusals: the latter have varied between 0,8% in 1960 to 1,6% in 1970 and 2,5% in 1982 (McDonald, 1984: 8); significantly lower than the 15% for South Africa quoted earlier.

6. Every month, one quarter of the US CPS sample is required to answer detailed questions about usual weekly earnings. The non-response rates here are in the vicinity of 16-20%, and average tested underreporting is

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1. This is discussed by Vivier (1979: 38-43). He observes that it took 12 years for the USA CPS to change to a rotational sample system (1943-1955), and felt in 1979 that South Africa was not able to do so yet (42). Six years later, however, this criticism is more valid.

about 3 - 5%. The South African version applies to all respondents, but appears to gather meaningless data.

Overall, it seems the US CPS is exceedingly complex and thus likely to run into error simply due to confusion by respondents. By contrast, the South African questionnaire is a model of simplicity, which can be explained by interviewers anyway - at the cost of enhancing interviewer effects on results. Both rely on 'key word' questions but the US CPS has more explanations and cross-checks; in any event, key word approaches will work better in a more developed country. Both will tend to omit very marginalised people.

The US CPS has indices covering some of the faults in the South African CPS (though not always in a satisfactory fashion), so much can be learnt about underemployment, the discouraged unemployed, the relation between work, productivity and incomes from it; its data is also published far more efficiently, regularly and thoroughly, and is apparently made available to outside researchers. In practice, however, it seems the 'crude' unemployment rate from the US CPS tends to be concentrated on by policy (for example, job-creation, the allocation of expenditure between states, and so on). In South Africa, on the other hand, very little has thus far been published about the CPS apart from simple unemployment and labour force tabulations, and the data currently available seems to be of more use for publicity purposes than in the development planning process.

5.4 The Population Census

In almost all countries, population censuses are the main source of national data on the spatial distribution of population for economic planning, according to race, sex, age, education, employment and other characteristics. The census baseline provides empirical data on people and their location needed for identifying the magnitude of particular population groups, assigning regional or local priorities according to numbers of people affected, providing a check on population estimates and a basis for policy on employment, manpower, education and the future provision of social services. The utility of the census is thus very closely related to the thoroughness of its coverage of the population.

The South African Population Census of 6 May 1980 will be discussed here as it was substantially different from that of 1970, and the 1985 census will be along similar lines - though much simpler!

5.4.1 THE QUESTIONNAIRE

The census questionnaire included questions on a variety of demographic and other issues which won't be dealt with here. For our purposes, fairly straightforward economic details were covered - sex, age, education, occupation, now and five years ago, industry and income; as well as some details on migration patterns, present work status and job search. The important 'economic' questions from the census are shown in Table 5.1.

Table 5.1 'Economic' questions affecting Africans in the 1980 Census

17. **Occupation.**—i.e. nature of work done. N.B.—If unemployed (i.e. looking for work), state last occupation.	(1) Now (i.e. 6 May 1980) (2) 5 years ago (6 May 1975)
18. **Present work status.**—E.g. employee, employer, unemployed (looking for work), not working (not looking for work), etc.	
19. **Only persons not working but seeking work.**— (1) Did person WORK during past week? (2) If not, did he/she purposefully SEEK work? (3) If work is found, WHEN can he/she begin?	
20. **Name of employer.**—	
21. **Nature/main activity of industry or profession in which working.**—E.g. agriculture, shoe factory, cafe, furniture shop, etc.	
22. **Annual income (all sources).**	

Note: references to the Instructions for filling in the questionnaire have been omitted.

5.4.2. WHAT IS PUBLISHED?

As of January 1985, one economic publication from the census has appeared, the 5% Census Sample Tabulation Economic Characteristics (CSS, 1982g). It covers, for SA as a whole, a) a detailed breakdown of occupations by race and sex (about 600 are listed), b) a breakdown of industry by race, sex and statistical region, c) income by statistical region and race (this is the first census to ask for African incomes), d) work status by race, and e) employer identity by race. Two other census reports had appeared as of late 1984: Geographical Distribution of Population (CSS, 1982e) and Social Characteristics (CSS,1982f)

Many further reports will appear in the foreseeable future. Unfortunately they will all be sadly out of date by the time they appear - when and if the final products of this R20 million+ enterprise (Lynch, 1980:

3) ever materialise.

5.4.3 THE CENSUS

316 Census Districts were demarcated in South Africa (excluding 'independent national states' but including Ciskei, then not yet independent), each with a census supervisor. These were subdivided into about 24 000 enumerator's subdistricts, with about 1 000 people in each. About seven million census forms were sent out in South Africa, most of which were actually used in the end. In the TBV 'states', separate censuses took place on the same day as the South African census, and results are apparently being processed.

Central Statistical Services has (conservatively) estimated that the census had an 8% undercount (compared to an estimated 4% in 1970). A senior official from CSS argued that most of this had been compensated for according to the age structures of the populations, sex counts, correlation and adjustment of results with other sources (for example, the CPS, employment figures from other series, figures for people in occupations with compulsory registration, like nursing), and so on, to yield an 'ideal' population for South Africa based on a 5% sample count. No details on this process of adjustment have been published, but the official said they had been shown to various demographic experts in South Africa, who were impressed. "We think the adjusted figures are very close to the real picture", he said.

Little reliance was placed on the census post-enumeration survey; he felt it was a waste of time and money - "We can run better checks at the

office desk than by going out into the field". Though results were not yet available at the time of writing (they were planned to appear in 1984), the reaction from respondents was apparently negative and it was "uncertain", in any event, which results were correct[1].

All this may simply indicate that the post-enumeration survey was not given the attention and resources it deserved, since such surveys have been regarded as crucial for census checking in many countries. Furthermore, "If no account of an evaluation is given, then some suspicion of the census must inevitably arise" (Casley & Lury, 1982: 37).

It is difficult to believe, moreover, that economic data could have been compensated for with much accuracy, except perhaps for such 'formal sector' magnitudes as total industrial employment. 'Selective undercounting' biases might not be exposed in demographic data, but would probably affect the unemployment rate, measures of the informal sector and so on. For example, people likely to be omitted by the census include those illegally living (and working) in cities, people in the

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1. Some authorities have been cynical about the possibility of an effective post-enumeration survey taking place in Third World countries, given prevailing economic conditions, limited financial and organisational resources, etc. One reasonably thorough one, however, appears to have taken place in Ghana as early as 1960. Here the population census had three stages:

i) the census proper, with 10 000 enumerators;
ii) a post-enumeration survey to investigate and re-interview a sample of households in some detail about household coverage, coverage of persons in the households, errors in content, and an inquiry into various supplementary matters. It used about 1 000 of the more experienced staff;
iii) a field reconciliation check on differences between census and post-enumeration survey, involving 10 - 15 highly experienced staff. The differences, it was found, were small, but significant in some important areas (Gil & Ghansah, 1968: 124).

most distant and inaccessible rural areas,[1] migrant workers, the illiterate, ill-housed and sick (Ward, 1983:125) - precisely those in whom poverty-oriented regional planners should be most interested! As Bondestam remarks:

> "one frequently comes across figures which are said to represent a certain defined population, whereas they may actually represent only a part of it. And it is often special categories which have been excluded, particularly people in the economic and geographical margin ... whose number/s/ are usually unknown and who are difficult to survey" (1975: 6).

In addition, the accuracy of the economic data collected is likely to be suspect as respondents may be cagey or inventive about items which could be used against them. In South Africa, an apartheid society, the position is likely to be even more complex. Not only, as Knight observes, are considerable "incentives to misinform provided by ... legal and bureaucratic controls"[2] (1982: 2), but (as in the CPS) the political roles of enumerators could exert some influence on the results[3]. It seems this misinformation and the distribution of the undercount would again be of precisely the type that would fail to reveal poor and economically marginalised people. One of the more important groups

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1. Ardington (1984) has suggested this of the Nkandla district of KwaZulu. Based on results of a household survey and figures on schooling, pensions and agriculture provided by the KwaZulu government, she suggests that either all these official sources are grossly inflated (which seems unlikely) or the 1980 census was subject to a substantial undercount in that district (128, 145-9).

2. Hakim recommends: "census questions must be acceptable to the majority of the population" (1979: 344); it is questionable whether this could be the case for any large-scale official survey in South Africa. There appears to be a 'popular-cultural' legacy of dislike of and opposition to state involvement or interference in household affairs, perhaps dating back to past taxation and legal experiences.

3. The role of enumerators is particularly important given the considerable de facto and de juro reliance on them, due in part to relatively less training and experience than for the CPS. This applies at both a practical level (checking answers, errors, non-response etc) and at an ideological level (interpreting answers and placing them, where relevant, into given categories).

incompletely covered would be squatters and other illegal urban residents of South Africa who would avoid the census for fear of discovery; this could lead to high census undercounts in African townships.

There is also particular reason to believe that the Transkei, Bophutatswana and Venda censuses were highly unreliable, carried out by incompetent and ill-trained researchers and enumerators, and riddled with errors. Discussion with researchers at Umtata's Institute for Management and Development Studies showed this quite clearly for Transkei, and the author's work in Qumbu District (see Moll, 1984, for an overview) in a relatively accessible and 'modernised' community, appears to indicate an undercount in that administrative area of at least 20%. This was discussed with one of the enumerators for that area; he concurred with this estimate and said he had left out hostile households or those where people were absent, forms had been lost, etc. Of course, it seems such undercounting has been the case in TBVC and other African areas for many years and many censuses, and also becomes a self-perpetuating process as the underenumeration percentages may tend to rise over the years by the very nature of census district demarcation.

4. HOW USEFUL IS THE DATA MEASURED?

Data on age distribution, sex, mortality and births are unlikely to be very accurate, but should not be particularly subject to large-scale confusion or misinformation (as usual, however, births will be undercounted, and for pensions purposes, many of the dead may well come to life in the statistics!). The problems arise when one considers economic activities.

The definition of unemployment in the 1980 census is very similar to that of the CPS, unlike that in the 1970 Census (Loots, 1978: 10; instructions were given to enumerate rural 'non-working' people as employed in agriculture or their last industry and occupation in many doubtful cases), except that maximum hours worked in the past week aren't prescribed, and people need to have sought work in the past week (see Table 5.1 above). This was done, as a CSS official put it, "To get rid of the Andy Capp's, the professional loafers, in other words, the sick, lame and lazy".

No definition of 'work' was given in the census questionnaire, and the concept is liable to extremely different interpretations by different people - unless enumerators were given far more explicit instructions before going out into the field[1]. The discussion about 'key words' and First World definitions of employment and economic activities in the CPS is also applicable here. As in the CPS, the treatment of non-formal sector work and the economic activities of women is likely to be poor; again, 'housewife' is included as one of the "not working and not looking for work" categories.

In general, the collection of economic data in a census is likely to be complex and inaccurate. As has been argued:

> "The occupation and employment status of household members are somtimes viewed by the questionnaire designer as an uncomplicated, unambiguous topic. Such is far from the case; indeed,

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1. The definitions of 'workers' in homeland agriculture changed between the 1960 and 1970 censuses (Knight, 1977: 4-5; also Du Toit, 1979: 100-101), and also between the 1970 and 1980 censuses. Knight concludes: "Changes in definitions from one census to another render inter-census comparisons of the 'economically active' worthless" (1977: 5).

> we doubt the wisdom of including such questions in a population census as superficial enquiries into these matters prove so misleading" (Casley & Lury, 1982: 191).

Furthermore, given some decentralisation (both within regions of South Africa, and with regard to independent states within it) and field autonomy, definitional differences could well result. These 'qualitative' sources of error are, of course, prior to checking and coding the questionnaires. And here technical, coding and processing errors are likely to creep in. For Sweden's 1970 census, for example, the classifications of occupations at the 3-digit level were 13,5% in error, while industries, at the 4-digit level, were 9,9% incorrect; results in the USA were similar (ILO, 1982b: 69). In South Africa, the situation is unlikely to be any better.

As Knight (1977: 36-7) has noted, the census is weakened by the fact that many of its variables are highly seasonal (including about 160 000 "Seasonal farm workers not in employment on census day" but not shown as unemployed), affected by economic cycles, and subject to processing errors. Some of these problems could be overcome by more rapid processing of census data, by using the census in close conjunction with other data sources (eg the CPS, household or labour force sample surveys), and with data on employment and unemployment, so the exact labour utilisation position at the time of census can be put into context and in turn shed light on other sources.

The census income figures are highly suspect and according to an official, very little import is placed on them by CSS. They have, however, been published despite the 50% odd African response rate; this seems

likely to leave out very poor households and perhaps bias the incomes of the rich downwards, thus leading to overly high income figures overall, with a more even distribution of income than is actually the case.

The South African census, as noted earlier, excluded the TBV 'states'. Their census results have not yet been integrated with those of South Africa and this seems unlikely to happen in the foreseeable future. This is a crucial absence as it means the figures omit a large stratum of the poorer African population of South Africa, and renders the census virtually useless for planning in regions B, D, E and G.

5.4.5 HOW COULD THE DATA BE USED?

For the purposes of regional planning and development, the census is not of course subject to the sampling weaknesses of the CPS, but its localised data is likely to have other errors. Perhaps its major use would simply be to provide a crude indication of the spatial distribution and economic position of the population, but there are indications that this is likely to be inaccurate for those suffering 'basic needs deprivation', particularly in the employment arena; and, of course, its data is out-of-date.

Education figures may be reasonable. Where there is a considerable undercount, however, literacy rates will be overestimated as it is precisely the less educated who will be omitted. Some data (for example relating to age and occupations) could be used in a way similar to that of the CPS; the rest are of use to give some idea of the occupational and industrial distribution of the population, and projections of the

supply of labour over time. This could be negated by the fact of migrant labour (though no data on it has yet been published) not allowing geographical analysis of population, labour force and education trends within regions.

The broadness of the census means it should be particularly appropriate for secondary analysis. It could, for example, allow detailed analysis of the personal, household and local labour market characteristics of the unemployed to be made; or analysis of the population by sub-groups, including sex, race and class differentials. (For these purposes, access to census tapes by outside researchers would, of course, be essential.) Ideally it could be used to provide detailed, disaggregated data on local (spatially or however else defined) conditions - in terms of the local economy, types of economic activity, earnings, employment and un/deremployment, population density, school attendance and education, and trends in economic activity rates. In Britain, for example, data is produced (not published) on each of 125 000 enumeration districts, for research and planning purposes, as well as aggregated by wards, districts, local authorities and so on (Hakim, 1982: 46).

Overall analyses of census results of particular areas could provide a basis for other detailed studies aimed at area-based action: for example housing or unemployment. It might be usable to isolate particular problem areas in conjunction with other data sources (and being by far the most comprehensive source available, could do so at a highly decentralised level, for example district or subdistrict), but extensive further research work would be required to complement its results and check its accuracy.

An interesting technique in other countries has been the use of micro-data - taking 1% or 0,1% samples of anonymous persons or households from the census and making them available to outside researchers (Hakim, 1979: 345). In the USA, this has been done by merging data between censuses, thus coming up with a longitudional approach to individual circumstances over the period.

It is likely that much could be done with census data if it was made available to researchers in South Africa. Secondary research could also help to investigate the extent (if at all, or in which particular areas) to which the problems outlined above weaken or invalidate the data. It is a priority, however, that in view of the necessity of the population census for planning, the coverage and quality of future censuses should be improved, and the economic questions should be reformulated, defined more clearly and made more thorough in ways similar to those suggested of the CPS survey above.

5.5 Sectoral Economic Censuses

5.5.1 INTRODUCTION

For planning purposes, sectoral censuses are critically important as they provide the main benchmark by which the growth and change of output, employment, incomes from work, sales and a variety of other aspects of formal sector production in South Africa can be estimated. In addition to other uses (productivity measurement, uses in wage-fixing and negotiations, economic indicators), they should provide measures of worker employment and incomes in each sector in a fashion usable for

economic planning purposes (eg government subsidies or rebates for labour-intensive or small firms).

In general terms, of course, the level and structure of employment in an economy or region and its breakdown are likely to be crucial indices by which the relative positions of regions over time can be assessed, and these data should complement the regional labour market indices discussed for the CPS and Population Census above. The sectoral indices tend to be more production-oriented, while those from these latter sources are more welfare-oriented.

Finally, for statistical purposes these censuses provide the basis for the monthly and quarterly labour surveys (discussed below); their universes are used as the basis of these surveys and the results of the latter (mainly raising factors) are adjusted in retrospect once the results of the most recent census have been processed.

Sectoral Censuses with potentially useful labour data which will be discussed here include agriculture, manufacturing, construction, internal trade, mining and services. The series reference numbers shown are those which are given in the CSS Quarterly Bulletin of Statistics (Volume 18.1 of March 1984), while figures in brackets give the approximate number of workers in each sector.

5.5.2 CENSUS OF AGRICULTURE - the 06-01 series (1 300 000)

Knowledge of agricultural employment in South Africa is important (especially the division into regular, casual and seasonal labour and amounts

of work done, by region) because a large proportion of Africans have jobs on white farms, and in many cases they and their families live in extreme poverty. It also seems total agricultural labour hired may be falling, especially women (De Klerk, 1983: 6-11), and there are certain hypotheses about it (its regional distribution, in which branches and which products, seasonality, mechanisation) which have important implications for long-run economic planning. In fact, a new type of commercial farm-induced proletarianisation of Africans may be well under way, and it is likely to have significant future effects on African employment and poverty.

The agricultural censuses cover all White-, Coloured- and Asian-held farming holdings in South Africa. They include some data provided on African areas by the Departments of Enviroment Affairs and Co-operation and Development; the census publications don't state exactly what this deals with, how it is collected and how reliable it is; it probably only covers larger African farmers.

Until 1981 the agricultural census took place every year; thereafter it will be biennial. The most recently published census returns at the time of writing were for 1978 (published in 1982); the 1979 results were due to come out in 1983, but failed to materialise, while the 1980 results were due to come out in 1984 (CSS, 1982d: 1). It appears the agricultural census has a low priority, and its data seems destined always to be at least four to five years out of date.

The most important measure in the census for our purposes is that of regular, casual and domestic employees, by race: total employment,

total wages & salaries, and rations and other remuneration in kind (see the excerpt from the questionnaire in Table 5.2). In the older censuses, no further labour details were asked for; in the census for the year ended 31 August 1981, there is a complex new section on casual employees hired month by month, by race.

Table 5.2 Labour Data in the Agricultural Census

SECTION 6 - NUMBER OF FARM AND DOMESTIC EMPLOYEES

6.1 ALL EMPLOYEES

Type of farm employees	Whites		Coloureds		Asians		Blacks		Total	
(a) Regular employees as at 31 August 19[ ] normally engaged in farm work (including the manager, foreman and other regular farm employees, etc.)	0099		0103		0107		0111		0115	
(b) Casual employees as at 31 August 19[ ] (seasonal, occasional and day-labourers) paid directly by the holder or farmer, e.g. shearers, harvesters, fruit pickers, bricklayers, dam builders, etc., (excluding contractors and their employees)	0100		0104		0108		0112		0116	
(c) Domestic employees as at 31 August 1981	0101		0105		0109		0113		0117	
TOTAL: (a), (b) and (c)	0102		0106		0110		0114		0118	

(From the 1981 Agricultural Census Questionnaire, Form 0601E, page 10. The format for questions on wages and salaries and remuneration in kind is very similar.)

This data is published by totals as above, with similar tables for wages and salaries and for rations and other goods and services. It is also published by statistical region (66 groups of about five districts each) and magisterial district.

A detailed study by Hendrie (1977: 186-191) looks at the availability, quality (reliability) and frequency of SA agricultural labour statistics, and comes up with a strongly negative evaluation. She begins by examining the definitions of regular and casual workers given in the

census questionnaire:

> "Regular employees as at 31 August 198__ normally engaged in farm work (including the manager, foreman and other regular farm employees, etc).
>
> "Casual employees as at 31 August 198__ (seasonal, occasional and day-labourers) paid directly by the holder or farmer, eg shearers, harvesters, fruit pickers, bricklayers, dam builders etc" (original emphasis removed, emphasis mine),

and argues that the census should use nominal rather than real definitions. Nominal definitions define a linguistic convention in an arbitrary fashion, while real definitions are statements about important characteristics of the reality to be defined, and tend to be highly confusing when badly specified. One real definition in the census is that casual workers are defined as seasonal labour - the important characteristic of casual workers becomes the fluctuating demand for labour. Marginal cases are not dealt with, for example migrants working on farms for eight months. A nominal definition might regard casual workers as those who work for the farmer less than nine months per annum (ibid, 187). At any rate, until the 1981 agricultural census no specific questions on casual workers were included, such that it's difficult to distinguish between regular and casual workers, and nothing on the length of employment of the latter was asked.

Hendrie notes that the definition of wages in kind - "Total estimated value of rations and other goods and services supplied to all farm and domestic employees ..." - and including the 'value' of rations, medical expenses etc and excluding the 'value of' free housing etc supplied to employees - is vague and inaccurate, yet such remuneration forms a substantial proportion of wages paid to workers. The prices at which such incomes are to be valued are not given and are probably exagger-

ated: "Estimates of payment in kind are ... thought to be grossly inflated" (Baskin, 1982: 47).

The data measured are not very useful for our purposes. Nothing on sex, age, education, job category or occupation of workers is collected. The questionnaire applies mainly to White, Coloured and Asian farmers in 'White' areas (excluding most workers in 'national' and 'independent' states), and the data is likely to be highly seasonal (apart from the new section on casual labour whose results haven't been published, the employment figures refer to 31 August each year). The method of sending out postal questionnaires which has been begun in recent years (rather than using the South African Police) is likely to lead both to incomplete returns and bias the final results - farms which won't return questionnaires due to laziness, incompetence or fear are likely also to be those with illegal labour and the worst-off workers.

Commercial farming is also an area which is particularly likely to be subject to false returns: it has received bad publicity in the past and many farmers are likely to feel defensive about how they treat and remunerate their workers, the data is continually changing and very difficult to check, and the questions are vague and poorly defined. At most 60-70% of the census forms are returned anyway (statistically, an unacceptably low rate of return; moreover, it is more than likely that the same farmers return questionnaires each year); again, the 'raising' procedures may well be problematic. There is as yet no sign of improvement in the quality of agricultural labour data collected, or in the regularity with which it is published.

Hendrie argues that the collection of agricultural statistics could be revised to improve the coverage and regularity of the data, without much more work than at present -

> "it would be to the benefit of farmers, statisticians and the Department of Statistics if the present annual census were replaced by a less frequent census to be supplemented with periodic sample surveys" (1977: 186).

This is an entirely correct but perhaps rather naive conclusion. Other aspects of agriculture are covered, sometimes faultily but in great detail (crops, output, livestock, capital goods, expenditures, buildings), and this, presumably, is precisely the purpose of the censuses; labour details are embarassing and probably seen at present as being of little use to the state and dominant agrarian classes.

The Fishing Census is very similar to the agricultural census except it investigates occupations in a broad sense (executive, sea-going, other regular and casual workers). The sample is around 1100, and forms are also sent out by post. The fishing census takes place about every four years. It is subject to similar criticisms to the agricultural censuses.

5.5.3 OTHER SECTORAL CENSUSES

These will be outlined briefly and analysed together at the end of this section as they employ similar conceptual frameworks and methodologies, have similar weaknesses, and present similar implications for development planning.

5.5.3.1 Census of Manufacturing - the 10-21 series (1 400 000)

This is the most important of the economic censuses. It applies to the last pay-day of June, and is intended to cover most manufacturing establishments (firms with a number of spatially- or industrially-separate establishments are covered separately) in South Africa. A vast array of data on costs, employment, output and products is collected.

For labour planning purposes, the most interesting data are employment figures for paid employees (production and related workers, all other workers) and working proprietors & family members, by race and sex. Apart from this, total yearly salaries and wages are measured, by race, as are net costs of services conducted for employees, contributions to UIF and Workmen's Compensation, in the form of entries in a profit-and-loss statement (see Table 5.3 below).

Data is published along these lines by major industrial group and sub-group. Principal Statistics (number of establishments, employees, salaries & wages, etc) are also published, by district and statistical regions and industrial main- and sub-group. No data is collected on days or hours worked.

The manufacturing sample in 1979 was 20 000, in 1982, 23 000. The data could be quite useful in conjunction with the labour surveys (discussed below), and the census takes place every three years to provide a regular benchmark. Unfortunately the data is severely out of date by the time it appears (the most recent published was for the 1976 census,

Table 5.3 Employment and Incomes Data in the Manufacturing Census

SECTION 3 - EMPLOYMENT - NUMBER OF PERSONS ENGAGED IN THE ACTIVITIES OF THIS ESTABLISHMENT ON LAST PAY-DAY IN JUNE 1979

07

Population group and sex	Paid employees			Working proprietors and partners, including unpaid family assistants
	Production and related workers 1/	All other employees 2/	Total paid employees	
Whites:				
Male	02	11	20	29
Female	03	12	21	30
Coloureds				
Male	04	13	22	31
Female	05	14	23	32
Asians:				
Male	06	15	24	33
Female	07	16	25	34
Blacks				
Male	08	17	26	35
Female	09	18	27	36
Total	01	10	19	28

1/ Including foremen, artisans, apprentices, operators, laboratory routine testing personnel, labourers, etc., and construction and maintenance workers (own employees) engaged in manufacturing, processing, assembling, repair, erection, installation and other work or services closely associated with such operations.

2/ Including executive directors, accountants and other administrative and clerical staff, salesmen, delivery, despatch, storage and warehousing staff and travellers, as well as research personnel (excluding working proprietors and partners but including employees at factory distribution depots).

8. Salaries and wages for the financial year (see notes above):

8.1 Whites	44	R	
8.2 Coloureds	45	R	
8.3 Asians	46	R	
8.4 Blacks	47	R	
8.5 Total salaries and wages			16 R

9. Contributions to the Unemployment Insurance Fund and the Workmen's Compensation Fund ..... 17 R .....

10. Contributions under the Black Services Levy Act and the Black Transport Services Act ..... 18 R .....

(From the 1979 Manufacturing Census Questionnaire, Form 10-21E, pages 5 and 8.)

published in 1979-80; the 1979 census was due to be published in 1982, but has put out only one publication thus far, on products manufactured; and the 1982 census has 1985 as target year).

5.5.3.2 Census of Construction - the 05-01 series (425 000)

The Construction census is very similar to that for Manufacturing. Data is measured on an almost identical questionnaire; the differences being that the employee categories change to 'construction and related' and 'all others'.

The census took place every two years until 1982; henceforth it will be every three years. The 1976 results were published in 1980, the 1978 and 1980 Census had 1983 as publishing date (but didn't appear), while the 1982 census has 1985 as target date. In 1978, 14 000 questionnaires were sent out; 15 000 in 1980.

5.5.3.3 Censuses of Internal Trade

There are three important series here:

Motor Trade 04-16 (115 000)
Wholesale and Retail Trade 04-41 (590 000)
Transport 22-01 (330 000)

Data collection is again along similar lines to manufacturing, including principal statistics, employee numbers and wages and salaries by race, sex and occupational grouping.

Censuses take place every six years; the last trade one took place in 1977 and was published in 1981-2, while that for 1983 has 1986-7 as target date; for motor trade and transport, the 1980 censuses had 1983

as publishing date, but didn't materialise, while that of 1986 is aimed at 1989 (CSS, 1982c: 3-4).

5.5.3.4 Census of Mining - The 16-01 series (700 000)

The census questionnaire measures employment by race, sex, type of mine (gold, asbestos, coal etc), type of work (foremen, professional, artisan, production workers etc), and salaries and wages for all employees. Again, this is similar to manufacturing, and published along the same lines, broken up by type of mine. No detailed data on occupations is produced.

The census takes place every 3 years; the 1978 one was published in 1982 while that for 1982 has 1984 as publication target. The sample size is 1 200.

Note: the Chamber of Mines and other mining organisations and firms acquire and collate a large variety of labour and labour-related information, some of which is used for planning within these organisations. Most such data appears to be confidential, however, and is not designed for use by government or outside organisations. The Reports of the Department of Mines cover some mining data, while TEBA (The Employment Bureau of Africa) keeps quite extensive data on African employees.

5.5.3.5 Services Censuses

The important services censuses are as follows:

Table 5.4 Censuses of Services

Name	Periodicity (most recent, its date of publication)	Sample size
Accommodation 04-01 (65 000)	6 years (1977; 1981)	3 500
Estate Agents 05-03 (8 000)	6 years (1978; 1983)	3 000
Commercial Agents and Allied Services 04-11 (16 000)	6 years (1977; 1980)	4 000
Motion Picture Production 04-10 (1 100)	6 years (1978; 1981)	70
Motion Picture Distribution 04-51 (4 800)	6 years (1978; 1982)	1 000
Catering Services 04-04 (29 000)	6 years (1977; 1981)	6 500
Renting and Leasing of Machinery & Equipment 04-09 (1 400)	9 years (1976; 1980)	1 000
Hairdressing and Beauty Services 04-13	9 years (1977; 1981)	4 600
Laundries and Drycleaning Services 18-01	5 years (1980; 1984?)	1 300

(From the Quarterly Bulletin of Statistics, March 1984; CSS, 1982c: 6-7.)

The Accommodation census is typical of the above and more complete than some. It is similar to the manufacturing census, though with more detail on occupations (occupational details include: executive, administrative and clerical; bartenders and barmaids; cooks, qualified; cooks unqualified; wine stewards; other permanent staff; other temporary staff).

5.5.3.6 Summary and Evaluation of the Sectoral Economic Censuses

The above censuses suffer from similar problems. They can be critiqued as follows:

i) The wages data is almost useless in most cases, as it is collected

and published by race only, not by sex, occupation and so on. The only useful labour-related indices in these censuses are average wage levels, by race, in the past year. The wages data is vague on incomes earned, on wages trends for some important groups in the labour force (especially women) or on occupational incomes; part-time or casual workers as at the census day are counted as 'workers', which could be misleading in some sectors (those subject to seasonal variation or which have a high proportion of non full-time labour).

Furthermore, the above are designed as censuses of business and output, not of labour, and provide no measure of the adequacy of employment and related incomes earned for workers and the distribution of income between them (crucial for the fulfilment of basic needs), apart from broad averages about earnings and days worked, particularly for marginalised or temporary workers without full-time jobs.

ii) While called censuses, the above come closer to censuses of large firms and surveys of small firms, whose results are then raised to be nationally representative. They thus have a strong bias towards the urban areas of South Africa where the large firms are to be found, especially towards the PWV area. Moreover, large firms are "repeatedly bothered and telexed" (Mr J Lynch, interview 23/9/83) and usually get their census forms in, while smaller firms have a much poorer response rate, in some cases as low as 20%. Thus, while most firms no doubt get covered on the basis of sales (the so-called 90-10 rule - the top 10% of firms in each sector tend to have about 90% of sales), this is far less the case for employment, due to small firms probably being being more labour-intensive than large ones.

Accordingly, the censuses can't be used to analyse productivity, labour-intensity and employment growth in small firms (see also section 7.4.1 below), an important element in the current state development strategy. The results for such small firms as are covered may well not be representative for small firms as a whole. In some cases, questions can also be posed about the completeness of the CSS-gathered universes for each census, as it seems smaller, rural or less official firms might evade the census net.

iii) The 'independent national states' are not covered in these censuses and tend not to run comparable ones themselves; among the only ones have been small censuses of business, professions and trades in Bophutatswana and Venda over the past few years, and a manufacturing census in Transkei. These 'states' also show no sign of attempting to come to grips with problems of measuring the above areas, let alone subsistence agricultural production or the informal sector.

iv) The census frame in most cases is incomplete. Only the large-scale, formal, urban sectors of the economy are treated in detail; much agriculture and other rural production, the urban informal sector, financial institutions and many services are omitted. This is the case particularly for small African firms in trade and services.

v) The employment data collected is limited and poorly defined, and may be severely deficient. The main reason for this appears simply to be the fact that these censuses are not specifically designed to collect

data on employment and earnings: such areas are covered almost incidentally, and little attention appears to be paid to these statistics.

vi) Censuses in many cases are few and far-between, and data tends to be published three to four years later.

Disaggregation may be possible to some extent, for example by region, to provide benchmarks for planning purposes. As noted above, however, the censuses have a strong PWV-metropolitan bias, and may not be strictly representative if regionally disaggregated. It is possible that the data produced would be as accurate as any alternative sources and provide a reasonable inter-regional picture of the distribution of production and resources, and of labour and labour conditions in each region. However, at a more local level (district or group of districts) this data would not be usable.

South Africa has no censuses or other thorough and regular official data sources on wage structure and distribution; all the above censuses are skimpy on employment and wages issues. Data on low-wage occupations (a target for improvement), on workers earnings below minimum living standards or on changing occupational and earnings structures over time, by region or other planning area, are not available. This kind of data should be available to assess goals and targets for wages and employment in the regional development planning process.

The most useful single change to these censuses would be a disaggregation of total wages in each establishment by sex and full-time, part-time or temporary work-status. Secondly, it would be highly desirable

to have data on earnings and employment by occupation as well, though this would make the questionnaires far more complex. At present, however, occupational data is meaninglessly aggregated; in most cases between two and five occupational groupings are used. Finally, it would be useful to have data on the structure and distribution of wages for all employees, including data on employee sex, education, occupation, earnings and hours worked. This would probably be outside the scope of the industrial censuses and require separate censuses, perhaps every six to ten years.

It is also important that the censuses should be representative of small firms, and these should be thoroughly covered in the surveys. This is especially applicable to regions with a high proportion of small firms. The censuses should also be processed far more quickly than at present.

These improvements would also allow better usage of the labour surveys described below. If the censuses were drawn and analysed by region, their universes (regularly updated) could be used to decide on the sample surveys as representatively as possible, and would facilitate the reliability of the latter for detecting short-run, regional, seasonal and other trends important for planning.

5.6 Labour Surveys

5.6.1 THE DATA

There are various series here, all published regularly by Central Statistical Services in Statistical News Releases (SNR's). They can be

summarised as follows:

+ Monthly data: important productive sectors of the economy.

+ Quarterly data: most other sectors of the economy, excluding agriculture and domestic service.

+ Various other less regular or more specialised surveys.

5.6.1.1 Monthly Series (2 940 000)

These series cover the following sectors of the economy: mining & quarrying (673 000), manufacturing (1 400 000), construction (425 000), electricity (60 000), transport (340 000), communication (40 000).

These are based on survey questionnaires sent out in the above sectors every month, and apply to the last pay-day of every month. All data acquired is by race, but not by sex. For Executive, Professional, Technical and Clerical workers, there is measured: employment, gross salaries, bonuses and labour turnover (discharges, resignations and engagements). For Production and Related employees: employment, gross wages, overtime, bonuses, ordinary and overtime hours, and labour turnover (see Table 5.5 below).

The data is published as Statistical News Release P.8 a few weeks after the survey has been carried out; it appears in the form of employment and earnings tables, by race (divided into main groups for manufacturing). It is also published as SNR P.17 (Short-term tendencies in the economic development of South Africa), monthly.

Data is gathered via sample surveys except for mining & quarrying (based on data provided by the Department of Mineral & Energy Affairs), and

Table 5.5 Excerpt from the Monthly Labour Survey

B. - PRODUCTION AND RELATED EMPLOYEES (ALL FOREMEN, ARTISANS, JOURNEYMEN, OPERATORS, LABOURERS, ETC.)

Item		Whites		Coloureds		Asians		Blacks		Total	
1. Number of employees on the last day of the last FULL PAY-WEEK of the month	031		040		049		058		067		
		R	c	R	c	R	c	R	c	R	c
2. Total gross wages (ordinary, incentive and overtime wages) paid for the last FULL PAY-WEEK of the month	032		041		050		059		068		
3. Overtime wages paid for the last FULL PAY-WEEK of the month (state amount included in 32 above)	033		042		051		060		069		
4. Holiday, Christmas and other similar bonuses paid DURING the MONTH	034		043		052		061		070		
5. Total actual man-hours worked during the last FULL PAY-WEEK of the month:											
(a) Ordinary hours	035		044		053		062		071		
(b) Overtime hours	036		045		054		063		072		
6. Labour turnover (Since your previous return)											
(a) (i) Number of discharges by employer during the month	037		046		055		064		073		
(ii) Number of resignations by employees during the month	038		047		056		065		074		
(b) Number of engagements during the month	039		048		057		066		075		

(Taken from the monthly labour survey questionnaire for Industry and Construction, Form 0101E, page 2. Part A applies to 'Executive, Administrative, Clerical, Professional and Technical Employees'; it is similar except that Questions 3 and 5 aren't asked.)

transport & communication (which covers only South African Transport Services and the Post Office, based on data they provide).

As usual, sample drawing is stratified by sales. A CSS official estimated typical coverage of sectors (at the 5-digit level) as follows:

Top 20% of firms	100%
Next 40%	33%
Next 36%	10%
Bottom 4%	0%

To 'raise' the samples to be representative of the universe in each case, the top stratum would simply be multiplied by 1 (in practice,

closer to 1.1, to allow for nonresponse), the next by 3, the next by perhaps 12 (to allow for the bottom, unsampled 4%). When the newest census in each sector is published, errors or incorrect trends in the recent labour surveys are adjusted for retrospectively.

The occupational data collected is very broad and vague. For example, occupational classifications in the monthly 'Survey of Employment, Industry and Construction' are as follows:

> "A. Executive, Administrative, Clerical, Professional and Technical Employees. Include: Managing directors and all administrative and clerical staff including travellers, despatch and other employees engaged in sales as well as employees at factory distribution depots, professional and other technical employees, including engineers, laboratory technicians, teamakers, messengers and others.
>
> "B. Production and Related Employees. Include: Foremen, artisans, operators, labourers and all other workers engaged in: (i) Manufacturing, processing, packing, assembling, repair and other production work; (ii) Work closely associated with production work such as transport, storage, construction and maintenance work to plant, vehicles, buildings etc."

Such data is useless for detailed planning purposes. The data on labour turnover, for example, could provide a useful indice of the current state of the labour market, but only if the results were broken down at least by occupation. It is also impossible to know whether different firms would allocate their workers into these categories in similar ways over time. If this is not the case (it probably deserves checking, as this is a problem with the Manpower Survey, discussed in section 5.7.4 below), the details on hours worked, overtime or productive employees are rendered almost useless.

5.6.1.2 Quarterly Labour data (March, June, September, December)

These cover Public Authorities (total employment of 1 020 000 as per SNR P.8.1 of 4 July 1984), Banks, Building Societies, Insurance Companies and Universities (190 000 - P.8.2), Wholesale, Retail & Motor Trade, Control Boards and Hotels (760 000 - P.8.4). The questionnaire is similar to that of the monthly survey shown in Table 5.5, except data is measured by sex as well and nothing is asked on labour turnover.

Details of earnings and bonuses paid are acquired for the previous quarter, while employment and vacancies are measured as at the last pay-day of the quarter. Occupations are amalgamated into several large groups, for example for Wholesale, Retail and Motor Trade: "1. Executive and administrative officials and clerks (office administration). 2. Shop/counter assistants (sales clerks). 3. Artisans (qualified only) ... 4. Other regular employees. 5. Casual employees." The data are published as SNR's a few weeks after the surveys take place as employment and earnings tables, by race.

Vacancy Measures in the above surveys

A typical example of the measuring of vacancies in the above surveys is provided in Table 5.6 below. It comes from the monthly manufacturing survey; the vacancies sections in the quarterly surveys are very similar except they require vacancies by race and sex. The occupational categories vary between surveys; there are normally around five categories. The labour shortage definitions vary between some of the quarterly surveys and results are not strictly comparable. In Banking, for

example, no occupational details are required and the vacancies definition is very straightforward: "Vacancies as at ... /date/". The survey of Public Authorities doesn't have a question on vacancies at all.

Table 5.6 Staff Shortages in the Monthly Labour Survey

0101 E

C. - STAFF SHORTAGE. INDICATE THE NUMBER OF ADDITIONAL EMPLOYEES THAT YOU REQUIRE IMMEDIATELY, I.E. AS AT THE END OF THE MONTH

Item	Whites		Coloureds		Asians		Blacks		Total	
1. Executive, administrative, clerical, professional and technical staff	076		081		086		091		096	
2. Production and related employees:										
(a) Artisans and journeymen (qualified only)	077		082		087		092		097	
(b) Apprentices	078		083		088		093		098	
(c) Operators	079		084		089		094		099	
(d) All other production workers and labourers	080		085		090		095		100	

(From the monthly labour survey questionnaire for industry and construction, Form 0101E, page 3.)

Technical Criticisms

The above two series of surveys were criticised vigorously in an article some years ago. Le Roux argued that "die amptelike indiensneming statistiek onbetroubaar en onbeskik vir ekonometriese ontledings en projeksies is" (1975: 139), due to faulty methods of drawing samples and ascertaining universes. He compared sectoral survey and census results for the period 1964 - 1970, concluding that inaccuracies were increasing in size over that period and that by 1970 the surveys were not usable for predictive and analytical purposes (ibid, 144). The reasons for this were as follows: i) New firms were only included in the universe from which the sample was drawn at the beginning of the year; ii)

samples were stratified only by sales, not by for example race, and coverage by race of the labour force varied considerably; iii) defunct establishments were only removed from the sample at the end of each year; iv) not all groups in a sample main group were included (ibid, 152).

The methods by which these statistics are produced are thus fairly efficient but distorted, as samples increase unduly in size during the year, and there are non-comparable changes from year to year. This was difficult to check, but according to a CSS official, most of these methods (especially i) to iii)) appear to be still in force. It is clear that weaknesses in the national sample would be exacerbated if national data were to be disaggregated, but the surveys would be strengthened if the sample was constructed independently by region.

5.6.1.3 Quarterly Wage Rates and Wage Indexes surveys

These apply to the Building Industry (published as SNR P. 18), Civil Engineering (P. 20), and Metal and Engineering (P. 21). They measure for select groups of employees (eg in Building, artisans by type of artisan, plant operators, learner artisans, labourers), details like employment, hours worked and basic wages. Only indexes of wage rates are published in the Quarterly Bulletin of Statistics. Data are published by province or metropolitan area (as per Industrial Council).

5.6.1.4 Biannual Manufacturing Wage-rate Surveys

These apply to the week nearest the middle of the month; months chosen

are staggered such that each Manufacturing Division (2-digit level) is surveyed twice during the year. They look at select Transport, Maintenance and Production employees (about 25 occupational categories, on the average, mostly "trained employees", though including entirely unskilled productive workers) for each division. Surveys have been run since January 1980; nothing has yet been published. These surveys may eventually provide useful data on most productive occupations, and especially on the adequacy of employment in various occupations, and the incomes earned by such workers.

Table 5.7 An Excerpt from a Manufacturing Wage-rate Questionnaire

THIS RETURN RELATES TO THE FULL PAY-WEEK ENDED THE ..... DAY OF APRIL/OCTOBER 19.....
(See explanatory note 1(b))

Occupational group	Population group and sex		Code	Number of employees employed	Total number of ordinary hours worked	Total actual wages paid	Average wage per person per hour	
1	2		3	4	5	6	7	
1. TRANSPORT AND STORAGE EMPLOYEES						R	R	c
1.1 Storeman	W	M	10111	.....	.....	.....	.....	....
	C	M	10121	.....	.....	.....	.....	....
	A	M	10131	.....	.....	.....	.....	....
	B1	M	10141	.....	.....	.....	.....	....
1.2 Light Delivery Van Driver (i.e. vehicles of which the unladen mass does not exceed 3 500 kg)	W	M	10211	.....	.....	.....	.....	....
	C	M	10221	.....	.....	.....	.....	....
	A	M	10231	.....	.....	.....	.....	....
	B1	M	10241	.....	.....	.....	.....	....

(From the biannual Wage-rate questionnaire for Basic Metals, Form 0137W page 3.)

5.6.1.5 Shift-work in Manufacturing

A survey of shift-work in manufacturing industry has taken place every year since 1979. The 1979 and 1980 results were due to be published in 1982, while those for 1981 were to be published in 1983 (CSS, 1982c: 8).

Since 1981, it has been scheduled to take place every two years. Nothing had been published at the time of writing, but final publication will take place as the 10-40 series. The sample is 3 500 firms and seems likely to provide useful data on firms' responses to changes in demand, the intensified use of various types of labour as response to manpower shortages, hours worked and so on. The periodicity of the survey (only once per annum) may be a problem.

5.6.1.6 Wage rates, earnings and average hours worked in the Printing and Newspaper Industries, Civil Engineering, Building and Commerce

This is an annual survey, applying to the last full pay-week of September each year. For select occupations, by region, it looks at minimum weekly wages, average actual wages, hourly earnings, weekly earnings, weekly hours worked, weekly overtime worked. Simple totals of the above are published. Results appear about 2-3 years after the survey week concerned as the 01-20 series; the most recent published dates from September 1979.

5.6.2 THE UTILITY OF THE DATA FOR RDAC PURPOSES

In general, from these ongoing labour surveys one could hope for employee data on: a) sex, b) earnings, c) location, d) industry, e) occupation, f) hours worked in production, and g) vacancies.

a) is covered in most surveys apart from the monthly labour survey; b) is measured by most surveys, though at a considerable level of aggrega-

tion and with no data on groups of workers or occupations; c) and d) are covered in detail by all surveys; e) is covered in some cases, though usually at an extreme level of aggregation; f) is sometimes dealt with for some select economic sectors, though usually aggregated also - detailed data on overtime per occupation is lacking; g) is covered in the monthly and quarterly surveys, again highly generalised.

5.6.2.1 Is Existing Data Regionally Representative?

In the sample surveys discussed above, the Cochran system of stratifying firms into four strata by sales, then 'raising' the percentage returns for each stratum to be representative of the whole, is used. Where productive and employment characteristics differ between regions or on a town-country basis, a national sample cannot be regionally representative as per definition. This stricture applies to all the surveys discussed in 5.6.1.1 above except for mining and transport and communication, and to wholesale, retail and motor trade, hotels and local authorities in 5.6.1.2.

According to a CSS official, to be regionally representative, CSS would need to "completely redesign the sample" for each survey. Sample sizes are fairly small at the moment and margins of error would rise rapidly if returns from regions were examined separately. In actual fact, to be usable by RDAC's, the samples would need to be drawn regionally and be considerably increased in size, especially for regions with fewer firms and metropolitan areas.

The rest of the sectors covered in 5.6.1.1 and 5.6.1.2 appear to be

collected by 'complete surveys', and if problems of differential response rates and representation of large and small firms are controlled, the data should be regionally acceptable. In such cases, each region - excluding 'independent national states' - could be taken as an entirely separate survey. A fairly simple computer 'search' program could assign each return into its National Development Area, and separate but substantially identical analysis of the data for each could be carried out. This, of course, would require that sample results by region be raised by region, and would thus rely on the regional results of the sectoral censuses, discussed earlier. Furthermore, the smaller the universe of such firms in the region, the larger the margin of error.

Data in sections 5.6.1.3 and 5.6.1.4 are published by province or metropolitan area. I could not ascertain exactly how the samples are drawn, but they could probably be regionally reorganised fairly easily. Both surveys, however, cover relatively specialised areas, so the value of such work would be small.

Data collected via surveys described in sections 5.6.1.4 and 5.6.1.5 have not yet been published (though they've been running for five and six years respectively), but it appears both are based on small samples and are subject to the above strictures about regional representation. I was able to find out little about them during a September 1983 visit to CSS, as staff responsible for them were absent.

All surveys exclude the TBVC 'states', once again an important omission for planning and welfare purposes. These 'states' are apparently planning their own surveys, but there is as yet no sign of their mater-

ialising in the foreseeable future.

One final problem is that data can in no case be published where it is applicable to less than three or four firms, hence highly disaggregated data might not be usable under the Statistics Act.

5.6.2.2 How Useful is the Data for Planning?

Data published from the monthly and quarterly labour surveys provide a valuable summary of employment and wage trends for the sectors of the economy concerned; mainly simple employment and earnings details by race, and some slightly more detailed breakdowns. Although they only provide generalised aggregates, they should be reasonably consistent between months or quarters. This is the kind of formal sector data which planners in any area always require, and while it can be critiqued along various lines (eg the fact that sex isn't tabulated in the monthly survey and isn't published in the quarterly survey), it is still fairly efficient and useful. Its accuracy and coverage, however, may be open to question, and merits further research.

The same surveys collect some data on vacancies which, on the surface of things, seem as though they could be used for analysis of manpower shortages and their relation to unemployment. The definition of vacancies, however, is poor. It reads, "Indicate the number of additional employees that you require immediately, ie as at the end of the /month or quarter/". Casual employees ("Employees employed by the same employer on not more than three days in any week") are excluded.

This data is so vague and obscure that it is probably worthless for planning purposes; much of it isn't even published by CSS. It is uncertain what exactly is meant by 'requiring' employees: does this mean the firm is actively searching for them, would it hire a few more workers if they offered themselves, is it taking current or future expansion into account?

The most important weakness, however, is that the survey's don't distinguish between occupations. The figures are highly aggregated, are unlikely to change much over time, and have low average levels overall; in actual fact, vacancies and shortages would probably be far more serious in some occupations and unimportant in others. These kinds of data certainly don't suggest themselves for long-term employment, education and vocational planning, and may simply not be worth having. In the case of the monthly data, however, data on labour turnover in the previous month is also collected, and could perhaps be used in conjunction with vacancies details. Unfortunately this data is also overly aggregated.

Accompanying these vacancies questions is one reading: "If the figures are substantially higher or lower compared with the previous return, state reason". Again, a potentially useful question is rendered useless due to vagueness, lack of space, not specifying the level of generality of the reply and the fact that it depends entirely on the above questions for success.

In practice, for this vacancies data to serve as an input into regional manpower planning, it would be desirable that it fulfil as many of the conditions laid down below for the Manpower Survey (see section 5.7.4) as possible, including the following: i) data should be acquired by occupation, or at any rate, a few important occupations could be detailed, and others in production or among administrative staff could simply be aggregated; ii) posts should be open at the end of the survey month; iii) they should be immediately available to be filled; iv) firms should be actively trying to recruit workers to fill them; v) workers outside the firm should qualify for them.

This could provide a very useful indicator of the state of regional labour markets if produced efficiently, both for firms, workers and jobseekers in the labour market, and in terms of a regular indice for state labour market and employment service policy.

Data for surveys in sections 5.6.1.3 and 5.6.1.6 might be useful for specialised purposes (eg firm-trade union or Industrial Conciliation negotiations), but are of limited applicability here - largely because they apply to relatively few workers. Other statistics from the biannual and annual manufacturing surveys will probably be highly useful in due course, especially regarding productive workers, hours worked, and so on, but it isn't possible to judge this yet. It is interesting to note that surveys deals with in sections 5.6.1.3 to 5.6.1.6 are aimed largely at 'blue-collar' workers; they may be extended to lower 'white-collar' workers and other industries in the future.

The periodicity and lateness of publication of some of the surveys is a

severe problem. This applies especially to the series collected at six-monthly or yearly intervals.

Finally, the data are again spatially biased (towards larger, more capital-intensive firms and hence towards more developed areas of South Africa), and while this may give a good picture of the overall development and employment trends of the economy (which is basically what these indicators are for), they can't tell about adequacy of employment, about hours worked, about poor and marginalised workers, about internal labour markets, the role of education and so on, especially not in the more marginal regions and sub-regions of the SA economy.

5.7 The Manpower Survey of the Department of Manpower

The Manpower Survey (MS) is the most important attempt to cover employment and vacancies, by occupation, for the economy as a whole. The scope of this survey is very broad; according to one of its mentors in the Manpower Department, it "tells you the story from the labour point of view". In labour and employment terms it should function as a kind of 'census' of jobs and hence be invaluable for planning purposes. Unfortunately, however, it suffers from a number of critical and perhaps fatal faults.

5.7.1 THE QUESTIONNAIRE

The questionnaire (as of Manpower Survey 15, 29 April 1983) investigates the occupational distribution (about 600 occupations are provided for)

of firms covered, in terms of present personnel (by race and sex), present vacancies for each occupation, and expected increases or decreases in posts over the next 12 months (see Table 5.8). There are separate sections for artisans and apprentices.

The main survey which appears every two years (in 'odd' years) covers 86 industrial sectors, with the results combined into 38 industrial sector groups for publication purposes. The main areas formally excluded from consideration are private agriculture and domestic service. A smaller, 'mini-survey' (which can be identified by the 'A' appended after the MS number) takes place in the intervening year and covers 24 sector groups, excluding commerce, trade, finance, services and government.[1] Totals from the surveys for the economy as a whole are thus not comparable, though those for sector groups should be.

Table 5.8 Excerpt from a Manpower Survey Questionnaire

Please enter ALL EMPLOYEES EXCEPT ARTISANS AND APPRENTICES in this section

Beroep / Occupation		Huidige personeel / Present personnel								Huidige vakature / Present vacancies	Verwagte toename/afname in getal oor 12 maande / Expected increase/decrease in number over 12 months	
		Blankes / Whites		Kleurlinge / Coloureds		Asiërs / Asians		Swartes / Blacks				
		M	V/F	M	V/F	M	V/F	M	V/F		Toename / Increase	Afname / Decrease
01 PROFESSIONELLE, SEMI-PROFESSIONELE EN TEGNIESE WERKNEMERS / PROFESSIONAL, SEMI-PROFESSIONAL AND TECHNICAL EMPLOYEES												
Chemiese Ingenieur (Professioneel gekwalifiseerd) / Chemical Engineer (Professionally qualified)	001											
Siviele Ingenieur (Professioneel gekwalifiseerd) / Civil Engineer (Professionally qualified)	002											
Elektriese Ingenieur (Professioneel gekwalifiseerd) / Electrical Engineer (Professionally qualified)	003											
Elektroniese Ingenieur (Professioneel gekwalifiseerd) / Electronical Engineer (Professionally qualified)	004											

(From the questionnaire for Manpower Survey 15 dated 29 April 1983, page 5.)

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1. At some future stage it will cover all the industrial sectors.

Until MS 14, personnel shortages/vacancies were indicated by race and sex, but this has now been abolished as many firms apparently indicated vacancies without regard to sex and race (see Table 5.8). The Manpower Department is making an effort to move away from emphasis on operatives and semi-skilled labour, towards professionals and highly-educated labour (ie higher-level manpower); the latter is divided into more categories and in much more detail in MS 14 and 15, while whole groups of operatives have been merged.

5.7.2 WHAT IS PUBLISHED?

The data is published in the format shown in Table 5.9, in two publications: a) total employment in all occupations, by race, and vacancies, for the economy as a whole (ie the economy-wide occupational structure), All Industries and Occupations; b) totals for 38 economic sectors likewise, as the publication on Sector Groups.

Table 5.9 Excerpt from Manpower Survey 14A

Bereep Occupation		Huidige personeel Present personnel											
		Blankes Whites		Kleurlinge Coloureds		Asiate Asiatics		Swartes Blacks					
		M	V/F	M	V/F	M	V/F	M	V/F				
	316	2020	1	1153		826		8346		664	104		93
	318			124		19		1599	12	9	23		18
	320	517		1314	23	235		9182	116	120	153		163
	320	2971	198	558	57	267		1659	28	569	19		28
	321	113		3739	1	615	2	23898	8	1098	176		234
	322		34	7				93	6	28	37		10

(From Manpower Survey 14A on All Industries and Occupations, dated 30 June 1982, page 9.)

The Manpower Survey has been run every second year since 1955, in April; at present its data are published about a year later. A senior official in the Manpower Department promised that some regional data would be printed (sectoral totals for each of the eight National Development Areas) but not published, as, he said, "it would be about five inches thick!"

5.7.3 THE SAMPLE

Manpower Survey questionnaires are distributed by post. Addresses come from CSS (mainly industry and commerce), the Compensation Commissioner (mainly services), and the Chamber of Mines. Surveys 7-11 were identical and included the whole of South Africa and Namibia; 12 excludes Namibia, 13 also excludes Transkei and Bophutatswana, 14 also excludes Venda. Post-1977 data on vacancies is not comparable with that collected before, as raising factors were changed in that year. Only in and since 1977, in fact, have vacancies data been raised to be representative of the universe.

The Manpower Survey is claimed to include 60 - 80% of total employees in each sector. Survey 14A was answered by 2 000 employers, while 15 had a response rate of around 80% from close to 35 000 firms. Again, smaller firms are dealt with rather cursorily - sometimes only every 10th to 15th one is actually surveyed.

The omission of the TBVC 'states' is regarded as unfortunate, but as a

Manpower Department official put it, "They think they're grown up enough, they're independent enough to do their own census" - in practice, however, this means a Bophutatswana survey may be in the pipeline, while the others haven't even considered it. The major loss appears to be their government apparatuses and commerce. These exclusions, though, shouldn't affect the census data much, especially in higher-level occupations, except for a few occupations like teaching.

The returns from samples are 'raised' by sector, occupation and race, to make the samples representative of the universes from which they're drawn. Such samples aren't stratified by occupation, however, and the raised samples may not be occupationally representative of the universe (that is, a universe stratified by sales may not provide valid data where occupations are of central importance) (Barker, 1983: 88-9).

For Compensation Commissioner data, two raising factors are used per sector, one where a complete survey is undertaken (to allow for non-response), and one for samples. This may exclude certain professions earning more than R12 000 until 1982, and more than R18 000 currently. The universe is improved by comparing MS details with numbers registered in certain occupations of professional organisations, but may still be incomplete, especially for services. Samples aren't drawn regionally at all, and hence can't be 'raised' regionally using national data. For this to be valid, both regional samples and regional raising factors should be taken into account.

5.7.4 HOW USEFUL IS THE DATA ACQUIRED?

Table 5.10 Some excerpts from Manpower Surveys: 1975-1981

Sector, occupation, race and sex	Manpower Surveys: No. 11 1975		No. 12 1977 (a)	No. 13 1979		No. 14 1981
	Occ. category	Numbers of workers			Occ. category	No. of workers
Sector 3. Coal Mines.						
"Labourer": African males	685	1 410	92	117	685	1 291
Sector 4. Other Mines.						
"Labourer": African males	685	47 235	24 424	20 730	685	43 468
Sector 20. Basic Metal Industry.						
"Labourer": African males	685	30 111	109 039	31 839	685	24 257
Sector 3. Coal Mines.						
"Mineworker (All Other Underground)": African males	278	40 309	51 386	0	274	48 671
Sector 5. Building and Construction.						
"Mineworker (All Other Underground"): African males:	278	4 813	19 197	26 033	274	8 729
"Joiner": Artisans: White males	765	897	221	847	785	280
Coloured males	765	321	106	106	785	311
Sector 28. Financial Organisations.						
"Mechanical Engineer": White males	004	42	95	39	005	110
"Architect": White males	101	9	7	217	024	0
Sector 35. Government and Provincial Administrations.						
"Technician: Engineering (Other)":						
White males - employment	113	413	132	19	064	3
vacancies		n/a (b)	39	8		3
total			171	27		6
"Technical Assistant (Other):						
White males - employment	115	572	697	287	071	197
vacancies		n/a (b)	73	103		175
total			770	390		372

Notes to Table:

(a) The figures for 1975 and 1977 may not be comparable as raising factors were changed; those for 1981 should be comparable but may not always be, as certain occupational designations were changed in that year.

(b) Vacancies have only been measured since 1977.

(Figures drawn from the official Manpower Survey publications as indicated.)

The MS does not cover: age of workers, earnings, education levels, employment status (permanent, temporary, casual or part-time), hours

worked, or detailed vacancies data (eg new vacancies versus those created as result of normal labour tunover). Its importance - if at all - lies in its estimation of sizes and breakdowns of the labour force in each sector, and its vacancy estimates. These are, however, all open to question. Table 5.10 illustrates the variability of the figures in various occupational categories for the Manpower Surveys of 1975-1981.

As can be seen, many of the occupational figures in the categories above vary considerable between successive Manpower Surveys. This appears to apply to a whole spread of occupations (not only unskilled to temporary ones, where exact employment may be uncertain), and to both white and black workers.

The above fluctuations must be ascribed to defects in the Manpower Survey. As Terreblanche puts it, "The percentages for the various occupational groups in a sector vary considerably from survey to survey. It is known that changes in the occupational structure occur only slowly, and that large variations must be ascribed to sample variations and classification problems" (quoted in Barker, 1983: 94; see also Hendrie et al, 1979: 11; Nathan, 1980: 2).

Furthermore, although figures for many occupations do show some consistency between surveys, the fluctuations depicted above tend to devaluate the whole survey unless the exact causes of the fluctuations are located and publicised by the Manpower Department. Unfortunately, little investigation has been done of how employers treat the Manpower Surveys. For each survey, however, about 20 employers are asked how they fill in the

survey forms. This tends to be either by i) occupation as they appear in the employer's books, and they get confused if there are fewer or different occupations in the MS to their own, or ii) large groups of workers are simply assigned into vaguely appropriate categories, for example 'Labourers' (note the massive variations in occupational categories 278 and 685 above) (Barker, 1983: 91-2).

Vacancies Data

The Manpower Survey is the only thorough survey of occupational and vacancies data for most of the South African economy, and great import is placed on its figures, often in terms of the 'skills shortage' South Africa is said to be suffering. Unfortunately the quality of data is too poor to allow this conclusion to be drawn. For example, referring to the last two occupational categories in the above table, it would appear that government is facing vacancy rates of 50% and 47% for 'Other Engineering Technicians' and 'Other Engineering Assistants' respectively - yet the variations in total posts of -84,2% and -49,4% between 1977 and 1979, and -77,8% and -4,6% between 1979 and 1981 tend to discredit the vacancies figures completely[1]. According to the Manpower Survey figures, vacancies tend to be highest in the public sector (see Meth, 1983a: 195-6), yet if this is their content, it appears all such figures may be doubtful - as well as the accompanying ideological prescriptions from the right or the left (Van der Merwe, 1983: 150; Meth, 1983a: 196).

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1. There may be reasons for some of these fluctuations. Unfortunately the details of method and changes between surveys given in the Manpower Survey publications are exceptionally vague and incomplete.

There are, moreover, a number of theoretical reasons for believing the Manpower Survey figures to be unreliable. Some definitions from the survey form for MS 15 read as follows:

> "By 'employees' is meant all persons listed on your establishment records as at 29 April 1983 and undertaking duties in your service for pay . . . Please also indicate the number of additional workers to whom you will be able to offer immediate employment in the different occupations on 29 April 1983. Any labour shortages that you may anticipate as a consequence of proposed expansion, must not be shown in the 'present vacancies' column ... Expected posts: The expected increase or decrease in the number of posts in each occupation on 28 April 1984 in comparison with 29 April 1983."

Until MS 14A, this definition excluded persons of any race who don't qualify for jobs as a result of government measures, for example African vacancies which can't be filled due to race ratio's. This would have made it difficult or impossible to compare unemployment and vacancy rates in a specific area - bad labour market policy will result if it's not known how many potential jobs there are in an area (Barker, 1983: 136-7). It is also not made clear whether 'present vacancies' are for permanent posts only, or for both permanent and temporary posts; it is likely respondents could interpret this either way.

Another meaninglessly vague question asks about the expected net increase or decrease in posts over the next 12 and the next 24 months (see Table 5.8 above). No explanation is given: i) how seasonal or temporary jobs are to be treated; or in general, any kind of fluctuating employment; ii) how to deal with expectations about the economic cycle, iii) proposed or possible future expansion/contraction, etc.

An examination of the results of MS 14A reveals a major overall anomaly.

All expected personnel increases in the summary are positive, and the survey was as at 30 June 1982; the one-year increase was until the same date in 1983 and the two-year one until 1984. (See, for example, the excerpt from MS 14A in Table 5.9 above.) And yet it is interesting to note that most economic indicators fell consistently over the first half of this period: total employment in manufacturing according to the monthly labour surveys, for example, fell from 1 473 000 in June 1982 to 1 392 000 by June 1983, and was still falling in August 1983. Likewise, total employment outside agriculture fell (slightly erratically) from 4 951 471 to 4 863 084 over that year. In other words, it seems likely that the questionnaire was radically misinterpreted overall - perhaps only expected increases were filled in, and not decreases.

In short, the vacancies question leaves unexplained such a variety of variables that any results are likely to be quite meaningless - even assuming firms take it at all seriously. Even where they do, the question still seems problematic: can firms even hazard a guess as to how many Dairymen, Brakesmen, Ovensmen or Sugar Pan Boilers they will need or lay off over the next year or two years? Unless they are operating under highly stable conditions, this is unlikely.

Barker has analysed the Manpower Surveys in detail, comparing them to other series dealing with manpower shortages and the occupational structure, including i) CSS data on non-agricultural employment, ii) the population census, and iii) other vacancy sources, for example CSS data on overtime, vacancies and appointments. He shows there is little consistency between these sources, and the differences are such that the reliability of all is questionable (ibid, 95-106).

He also notes that the definition of 'vacant post' used - "Please ... indicate the number of additional workers to whom you will be able to afford immediate employment in the different occupations on ... (date)" - is bad; it should be defined far more rigorously, he suggests, as including various components: i) posts should be unoccupied at the time, ii) they should be immediately available to be filled, iii) firms must be actively trying to recruit workers for them, iv) workers outside the firm should qualify for them, v) all posts, full- and part-time, should be included, vi) jobs where people are on leave or will start work later should be excluded, and vii) short- and long-term vacancies should be tabulated separately to make the definition compatible with that of unemployment (ibid, 37-39; he regards i - iv as most important). In Britain, for example, the vacancy definition is as follows:

> "a job ... (a) which was vacant at the end of business on ... /a particular date/ and available immediately; (b) for which some specific recruiting action took place on at least one occasion during the previous four weeks; and (c) which was aopen to workers outside the establishment" (quoted in Barker, 1983: 31).

The problem is that the MS vacancies data is so vague and generalised that it is probably unusable for any form of planning. Vacancies per se aren't a good indication of actual manpower shortages without a) being very clearly and precisely defined, and b) assumptions being made about the relation between shortages and manpower (ibid: 11-81). When the former is poorly defined, it's difficult to make meaningful assumptions about the latter. Rigorous definitions of what is being collected is necessary; the following cases for example are not covered by the MS:

i) Employers may be offering very low wages (unrealistic demands) and

posts may remain open, though this has little economic meaning;

ii) Employers may stop looking for workers if they decide it's not economical - ie have a labour shortage, but no vacancies;

iii) 'Frictional' vacancies aren't necessarily labour shortages;

iv) No data is collected on the quality of labour desired.

Barker suggests that the Manpower Survey could be improved as follows:

i) By collecting some regular, quickly-published quarterly data as well as the complete survey. At present, data is only properly acquired every two years, though there is the smaller annual survey too. This prevents seasonal changes from being picked up; more selective quarterly data might be preferable. It should include data on salaries offered, and distinguish between short- and long-term vacancies;

ii) By improving the drawing of samples, raising of results, comparability over time and publication of data;

iii) By investigating labour bottlenecks in important occupations in much more detail; he suggests that about 20 occupations could be covered in this way (1983: 107-110).

5.7.5 UTILITY FOR RDAC PURPOSES

Ideally the Manpower Survey should be usable to complement unemployment policy at a regional level. On the one hand, it could help ascertain the causes of local or regional unemployment problems (inadequate over-

all demand for labour, shortage of higher-level manpower, firms having expectations of paying unreasonably low wages, poor allocation of various types of labour between regions), with corresponding implications for state expenditure, schooling and industrial training policy. On the other hand, this information should be channeled back to firms, workseekers and scholars, to speed up and improve the short-run dynamics of the labour market.

At present, however, the Manpower Survey cannot fulfil this role and, in view of the above discussion, its figures seem without much value. In particular, the absence of any wages data and lack of knowledge how reliable the figures are make it useless for any form of basic needs-oriented labour planning.

As mentioned above, the results of MS 15 may be made available according to the eight National Development Areas. This data will not necessarily be representative of firms by region, however; samples stratified and drawn by sales nationally will concentrate overwhelmingly on the urban areas, especially the PWV area, and will under-represent rural areas and small firms which are likely to have different occupational and skills characteristics from the national average.[1] The survey is more complete than most, though, and hence could perhaps be adapted for regional uses in the long run by modifying the survey and removing bias between regions, specifying the employment and vacancies questions more carefully,

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1. Since MS14, information has been gathered on a regional basis but has not been published due to the lack of valid information on the universe per industrial sector. The universe can only be established by undertaking a 100 percent survey per industry and region; this was to have taken place with MS16 for certain industrial sectors, but was not done due to lack of funds.

and researching how firms fill in the questionnaires and how this affects the resulting data.

5.8 South African Labour Statistics: Summary and Implications

5.8.1 INTRODUCTION

In Chapter 2, a segmented labour market-inspired oligopoly-competitive model of the capitalist economy was discussed. As suggested there, it seems highly applicable to the South African economy. The oligopoly sector is seen to be capital-intensive and highly productive with large enterprises, routinised jobs and established internal labour markets; for output and employment purposes the problem is to maximise 'job utilisation', filling vacancies in the short run and ensuring successful job-creation and training in the long run.

The competitive sector is labour-intensive, with a low level of technology, low wages and poor jobs often characterised by (visible or invisible) underemployment. The problem here is to improve 'labour utilisation', raising the productivity and remuneration of labour. Lurking on the edge here is the informal sector, unrecognised in official statistics (often as per definition) and about which very little is known, with an exceedingly low average labour productivity. Closely allied to this latter sector is the problem of short- and long-term unemployment; there are also questions of household work and incomes, domestic labour and so on.

This model helps to explain the type and nature of statistical coverage of labour issues in this country. It is graphically depicted in Diagram 5.1 on the following page.

5.8.2 A MODEL OF STATISTICAL LABOUR COVERAGE IN SOUTH AFRICA

5.8.2.1 The Oligopolistic Sector

This sector is relatively well-covered in South African statistics on labour and labour utilisation. Sectoral censuses take place fairly regularly, while monthly, quarterly or 6-monthly series collate wages and employment data.

Problems with labour data on the oligopolistic sector:

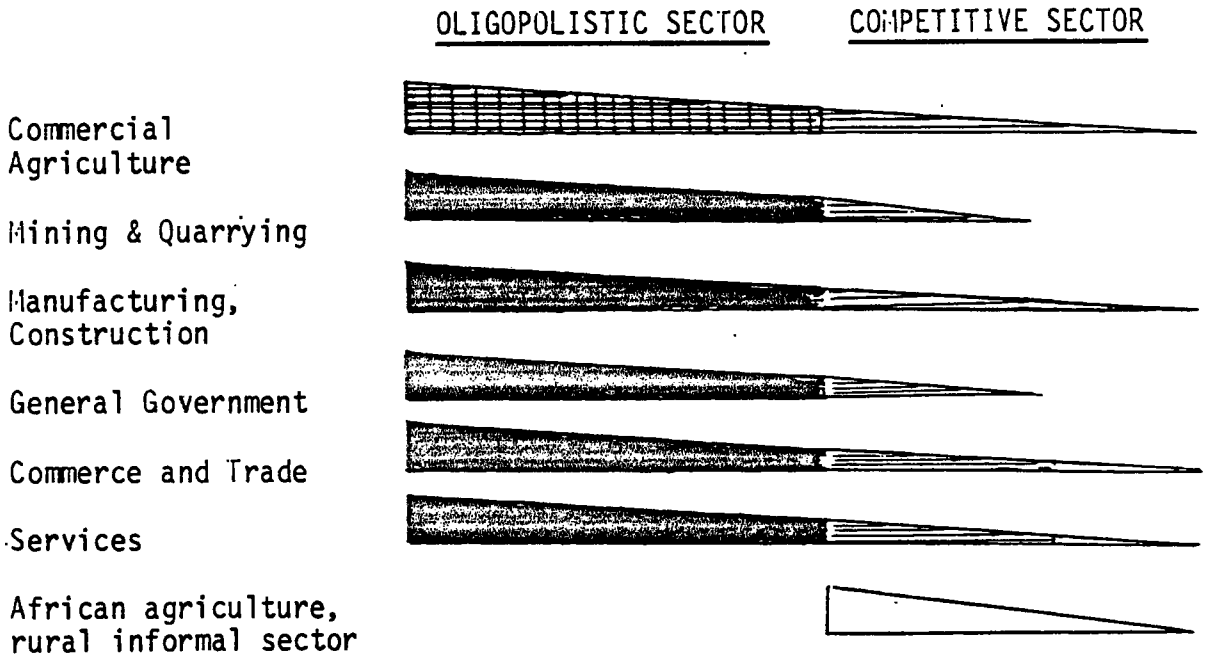
1. Data on hours worked is scanty, and hence 'productivity' issues are difficult to analyse;

2. Information on job vacancies is poor, occasional and almost impossible to use in practice;

3. Questions can be raised in some cases about techniques used to collect and analyse data.

4. Information on issues of wage structure and distribution and their changing over time is sadly lacking.

Diagram 5.1 Statistical Coverage of Labour and Employment Issues in South Africa



5.8.2.2 Commercial Agriculture

Commercial agriculture may be said to span the oligopolistic and competitive sectors. The production process seems to be becoming more capital-intensive and centralised (monopolised), but the majority of enterprises are still highly labour-intensive. The statistical deficiencies associated with this branch of production require that it be analysed on its own:

1. Data is collected only via occasional censuses;

2. Questions on employment and reumeration of labour are vague, broad and likely to be poorly answered;

3. Data which can be used to analyse questions of demand for agricultural labour and factors which affect it is not collected.

5.8.2.3 The Competitive Sector

These areas of the diagram are formally dealt with in the statistics, but coverage is highly deficient. In addition to data problems suffered by the oligopolistic sector:

1. Samples stratified by sales may be misleading regarding employment, wages and so on;

2. In any event, where coverage does take place, data produced is invariably highly aggregated and mainly applicable to large firms.

5.8.2.4 Other Areas

These are closely associated with the competitive sector, but are particularly important in South Africa and are hardly covered in official statistics:

1. Domestic Service is not dealt with at all, apart from a brief annual report based on limited research[1];

2. 'Subsistence' agriculture and the informal sectors aren't covered - very little is known about employment, incomes and how production is organised in these areas. Some crude and limited employment and income aggregates can be derived from the CPS.

3. Total population, employment and unemployment are measured in the Current Population Survey and Population Census:

i. The completeness, coverage and collection processes are open to question;

ii. 'First World' concepts tend to be used, leading to misleading acquisition and analysis of unemployment, labour force participation rates, etc;

iii. There is no explicit focus on underemployment, on questions of productivity and how these relate to income;

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1. This is the 11-03 series, "Statistics of Houses and Domestic Servants as of ... (date) and of Flats as of ... (date). Twelve Principal Urban Areas in South Africa", with some data on wages, food and living quarters by race and sex. It has a very low response rate and nothing is published on total numbers of domestic servants in each urban area, or on the distribution of wages - only averages by urban area and race are given.

iv. Income data is poor and highly unreliable.

5.8.2.5 'Independent National States'

Finally, very little is known about the TBVC economies. These 'states' have well-developed government apparatuses, some services, trade, 'sub-subsistence' agricultural production and informal sector activities, but little manufacturing or primary production. Their data-collection agencies separated from South Africa at their separate 'independences' and are exceedingly inadequate, with no regular statistical programmes yet gotten off the ground.

5.8.3 CONCLUSION

In general, the formal sectors of the South African economy are covered to some extent in existing labour statistics. While these are often poor and inadequate, they do begin to provide a reasonably inexpensive basis for regional planners if modified and improved in particular ways, as will be discussed in the following section.

It can be observed that the areas on the above diagram where data is weakest or most deficient tend to be precisely those most closely associated with the employment position, work needs and incomes of the poor. If the state is serious about wanting to plan to meet the basic needs of the worst-off sectors of the population, it will need substantial interventions in the economy at various levels, and extensive data requirements about such people would need to be met. It is clear, then, that

the state and regional planners are facing a massive 'knowledge gap' between the data needed for effective basic needs-oriented planning and the few unreliable statistics that are currently available. Some of these could be improved reasonably cheaply (see below); in other areas, completely new data sources and analysis are required at the regional level as discussed in Chapter 7.

5.9 Improving Existing Statistics for Regional Planning Purposes

5.9.1 INTRODUCTION

Various criticisms and suggestions for improvement of South African labour statistics have been made above. This section will draw them together and attempt to polarise them, while also indicating their implications for costs, manpower and organisational infrastructure. This section deals solely with current national statistical programmes which could be of use to regional planners. Chapter 7 investigates new regional statistical programmes and their pecuniary implications.

5.9.2 FORMAL SECTOR LABOUR AND EMPLOYMENT COVERAGE

5.9.2.1 Commercial Agriculture

At a very basic level, it would be desirable to improve the definitions and questions in the questionnaire and extend it to include better data on wages as well as the sex and job categories of workers. It is

possible that the accuracy of the data would be improved by carrying out only occasional censuses, with considerable efforts made to ensure maximum coverage and understanding by respondents, supplemented at regular intervals by 5 percent or 10 percent sample surveys. Since wages and employment data are a small and easily categorised part of the agricultural questionnaire, it seems they could be substantially improved with relatively little additional effort.

For regional purposes, it would be desirable that the periodic censuses be as complete as possible, while sample surveys could be drawn on a regional basis to ensure regional representativeness. If census data was published regionally and sample data produced quickly and efficiently by region, our knowledge of agricultural development within each region would be greately improved. Changing to sample surveys could improve knowledge of agriculture through more regular acquisition of data, and certainly enable it to be published and distributed to regions far more quickly than at present.

5.9.2.2 Non-Agricultural Formal Sector Activities

On the grounds of economics of scale and the need for uniformity of data, it would probably be preferable to adapt existing data sources for regional planning requirements regarding formal sector activities rather than have each region investigate such activities independently.

Again, the major priority here seems to be to improve the coverage of the surveys and censuses and to improve the questionnaires and questions asked. In the former case, deliberate efforts should be made to ensure

representative coverage of firms in terms of employment and wages factors, not only sales as at present; small firms should be a particular focus of investigation. In the latter case, various ambiguities surrounding particular areas should be eliminated, particularly in the cases of temporary workers and vacancies data. Finally, thorough research should be done to investigate the links and differences in the employment arena between sectoral censuses and surveys, the Manpower Survey, the Population Census and the CPS (perhaps by outside researchers); in this way, one's knowledge of exactly what is being covered and the weaknesses of the various sources would be greatly enhanced.

A more complex need is to improve the wages data acquired. Some new surveys (not yet published) may help to fill the gaps here in due course. It would be desirable to have data on wage structure and distribution in which details of every worker are collected, but such censuses are complex and expensive to run, and could take place only every few years. On the other hand, since employment related data is again a relatively small proportion of the overall census questionnaires, somewhat more detailed data on worker sex, race, occupation and average wage levels could be obtained without increasing costs very much. The monthly and quarterly labour surveys could be improved in similar fashion. Finally, the vacancies measures should be completely reformulated and made much more rigorous; costs could be reduced for the manufacturing survey by eliminating vacancies from the regular monthly questionnaire and supplementing it at quarterly intervals with a far more careful and detailed vacancies questionnaire.

For regional purposes, it would again be desirable that the coverage of censuses be as complete as possible, preferably by drawing samples to be representable by regions and aggregating results to get national figures. This need not be much more complex and expensive than at present. Once again, a priority would be to produce census and survey results far more promptly than is currently the case, with regional data published regularly and also made available to regions to enable more detailed research to take place.

Much the same should happen regarding the Manpower Surveys; since these are intended to be very nearly censuses, regional data could be produced simply by disaggregating data by regions as is apparently happening - fairly promptly - at present. The inaccuracies and questionnaire weaknesses discussed above, however, render this data useless for planning purposes; as Barker suggests, less regular but better overall surveys combined with regular more detailed and far more careful sample surveys might be preferable - again, on a regional basis. These changes would of course require a major reorganisation of the Manpower Survey.

5.9.2.3 Conclusion

The above not very substantial changes should enable regions to monitor development progress at a macro-level in terms of output, employment, wages and vacancies indicators. Most of these rely on improving the coverage and questionnaires of existing surveys and censuses, drawing samples regionally and publishing results promptly. It would be desirable that while this research and statistics-acquisition continue

taking place nationally, the regional planning authorities have an input into this process regarding their data requirements (Ripert, 1973:3-9) - for example, special problems of regions could be investigated by occasional or once-off questionnaires on specific issues accompanying the main questionnaire, and the resultant data should be produced and made accessible on a regional basis.

Poverty-oriented regional development efforts aimed at white agriculture would mainly attempt to improve the wages and conditions of living (eg through provision of public goods) of farm workers. This would require markedly different programmes from efforts to develop African areas and African 'subsistence' agriculture, hence the exclusion of TBVC from the agricultural censuses is not a severe problem.

In other areas such as services, government employment and perhaps manufacturing, this exclusion matters far more. Ideally the surveys and censuses should cover the whole of pre-1976 South Africa as regional economic planning without data collection programmes for those same regions makes no sense at all; otherwise, simultaneous surveys should take place in TBVC at the same time. This may be impossible due to the rudimentary data-collection agencies in TBVC - a critical knowledge and skills gap which regional planners will have to confront.

Finally, in terms of comparative costs it can be argued that employment and welfare oriented data should have a much higher priority in all the above-mentioned surveys and censuses, and that if funds to carry out the above changes are limited, perhaps other parts of these surveys and

censuses should be shortened or eliminated. Clearly, research would need to be carried out on the utility of each bit of data acquired in each case, but for basic needs-oriented planning purposes, the needs discussed here should have priority.

5.9.3 LABOUR UTILIZATION AND WELFARE ISSUES

It has been argued above that the most important areas in South Africa in which development-oriented research is required are i) the underutilisation of labour and the link to low incomes among the poor; ii) the informal sector. It is in these areas that the greatest reorganisation, extension and supplementing of existing data sources are required.

Current data in these areas is of little value at present, though in the case of the CPS and population census it is possible that more detailed research into the data produced could show it to be reliable in particular areas. The coverage and representativeness of these sources, however, is open to question.

Perhaps the most valuable change possible would be a revision of the CPS designed to a) improve its coverage, preferably making the data regionally representative; this would require much larger samples more carefully drawn; b) more detailed and directed questionnaires, to reduce the role of interviewer-bias; c) sample rotation at regular intervals; and d) more careful and topical questions, to allow for aspects of non-commodity production, poor or non-existent local labour markets and the immobility of labour, etc. Some problems such as mistrust of

interviewers by respondents and other 'sociological' weaknesses of the CPS are very difficult to deal with; further research into these areas is required.

Such changes, of course, would entail high organisational and running costs. The very importance of this area, however, and the urgent need for several national employment and poverty indicators indicate that the CPS should take precedence in helping to assign priorities between regions and monitoring national and regional effects of the business cycle, monetary and trade policies etc - which implies that resources should be moved into the CPS from elsewhere, either from other government departments or from other less critical statistical programmes within CSS. The administration of such an improved CPS could probably be done best by expanding the staff and procedures currently dealing with it.

Again, the regionally representative data produced by CSS would imply regular and efficient publication of aggregates, nationally and regionally, and would require regional data to be sent back to regions for far more detailed regional-level research. Regional planning authorities should provide considerable input in designing such a revised CPS, to ensure regional representativeness and the coverage of regionally-specific elements, either in the main questionnaire or via (once-off or periodic) regional supplements to the main questionnaire. These could cover a great deal of ground in considerable detail, looking for example at household resources, incomes and informal activities. They could only be valuable, of course, if the CPS sample and coverage

within particular regions was satisfactory.

It is clear, however, that the continued exclusion of the TBVC 'states' from the CPS negates most of its value as a provider of data about basic needs, employment and poverty issues in South Africa. It is hardly worthwhile improving other aspects of the CPS without extending it to TBVC. Officials in CSS appear to regard this as diplomatically impossible, while the practical skills and manpower needed for each 'independent national state' to run its own CPS would probably be overwhelming. Until this problem is confronted and solved, however, regional planning in regions, B,D,E and G will be severely restricted, if not paralysed!

5.9.4 CONCLUSION

The above suggestions imply that if regional planners are to use existing statistical sources as the basis for regional data in the foreseeable future, then these sources will have to be reorganised to acquire regionally representative data. This would imply fundamental changes in the running of various surveys and censuses, both to make data regionally representative, and to ensure regional data is produced promptly and efficiently - not simply as an additional extra long after the national data has been published.

This would clearly imply a long-term commitment to poverty alleviation and regional planning in this country by the State for the foreseeable future - a commitment which thus far has been noticeably lacking, inasmuch as one can tell from official documents, planning proposals and

expenditure, and the behaviour of the 'independent national states'. Reorganising data sources as described above, for example, would require a careful specification of the aims and methods of regional development for a period of a decade or more, and there has been little sign of this happening.

This raises an even more fundamental question of course - whether the regions A-H as currently defined are optimal for a regional development strategy, especially given the somewhat ambiguous roles of the 'national' and 'independent national' states within them. Until these issues have been confronted, any satisfactory reorganisation of government statistics is most unlikely to materialise.

5.10 Conclusion: On the Accuracy of Official Economic Statistics

Morgenstern (1970) has written an excellent book critiquing prevailing conceptions of economic statistics and accuracy, especially official ones. He argues it is crucially important to know the methodology by which statistics were collected, with widespread access to questionnaires, knowledge of interviewers and interviewing techniques, samples etc - "Publicly used statistics for which the user does not have access to this kind of information should be rejected, no matter how interesting or important the particular field may be" (ibid, 30; my emphasis). Furthermore, it is necessary "to stop important government agencies ... from presenting to the public economic statistics as if these were free from fault" (ibid, 304). Sources of possible error and estimates of statistical error should always accompany publication of statistics -

this, he suggests, would be the biggest possible short-run step to improve United States Government statistics (ibid, 304-5; also the whole of Section 1), and he cites the work of Kuznets[1] (1953) as one indication of directions in which such investigation can proceed.

In South Africa there is a whole battery of sources of error and uncertainty which crop up in the labour field: 'interviewer' effects; poorly specified questions; poor sampling techniques, or techniques inadequate for the purposes to which they are put; vague and unspecified 'corrections' of data for seasonal, cyclical and a variety of other variations, and so on. Many of these could be compensated for by users through the publication of the full details of all questionnaires, techniques and methods used.

A useful guideline here has been put forward by the Thirteenth International Conference of Labour Statisticians. It recommends publication requirements for surveys and censuses dealing with labour and employment issues as follows:

> "descriptions should be given of the scope and coverage, the concepts and definitions, the method of data collection, the sample size and design where sampling is used, the methods of estimation and adjustments, including seasonal adjustments where applied, measures of data quality, including sampling and non-sampling errors where possible, as well as descriptions of changes in historical series, deviations from international standards and relationships with other sources of similar data and related bodies of statistics" (ILO, 1982b: 84).

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1. Kuznets analysed the national income figures for the United States 1919-1939 and concluded that while it was probably accurate to within 10% as conventionally defined (1953: 528), in some important sectors error may have been above 15% (agriculture, mining and government, for example), while in others it may have been above 30% (eg construction and services) (ibid, 501-537).

By contrast, official South African statistical publications tend to be satisfied with a few lines about sample sizes and some brief definitions[1].

Other errors crop up when the approach of the survey or census is "incompatible" with the economic enviroment in which it is to apply (Bruton, 1980: 90). This often occurs where the exact purpose of the survey is uncertain; surveys compiled on the basis of no specific planning objectives may be unsuitable for any purpose at all (ibid, 85). Furthermore, the problem then is that crucial areas are simply not dealt with,

> "There may be vast amounts of data, countless surveys and questionnaires; yet, when customers look for data to use for a specific objective, there may be none. The result is almost always a consequence of the fact that so much of the available data are collected independently of any /explicit/ model or question" (ibid, 108),

while others are covered unsatisfactorily.

Another problem arises where 'internationally accepted' definitions and methods are applied to South Africa. Even if technically exemplary and perhaps compatible with data from other countries, such statistics may be useless from a developmental point of view. It is also noteworthy that 'international' - i.e. First World! - methods often lead to conservative and hence politically acceptable results in the labour arena - e.g. 'unemployment' as measured by the CPS (see sections 5.3.5.1 to 5.3.5.4 above).

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1. One petty but rather amusing case of this is the South African Population Census of 1980. None of the three reports on it published at the time of writing mention anywhere the date on which the census took place.

Of course, as suggested earlier in this chapter, poor statistics are more the result of political intrigue and resource allocation than bureaucratic mismanagement. The production of South African statistics does not take place in an apolitical vacuum. Political priorities play a large though usually implicit part in the designing and collecting of statistics, especially labour statistics. The South African state is unlikely to produce good and thorough statistics on employment and labour utilisation until there is a vigorously-expressed demand for them within the state itself. This is likely only to occur when the state perceives itself to be facing a crisis in these areas and wishes to make active long-run efforts to overcome it.

CHAPTER SIX THE CURRENT POPULATION SURVEY METHODOLOGY IN PRACTICE

6.1 Introduction

This chapter examines the Current Population Survey in the light of a survey with a similar methodology carried out in a Transkei village in November-December 1983. The survey of 200 households in the Lower Roza Administrative Area of the Qumbu district focussed on access to productive resources and employment or underemployment of household members. It was based on a lengthy and detailed questionnaire, the administration of which was supervised by a local teacher who also helped publicise the survey in the community beforehand. Four more surveyors (two male, two female) were chosen from the area and trained shortly before the survey began. (Further methodological detail is given in Moll, 1984:44-47).

No refusals by respondents were encountered after the first day in each locality in Lower Roza, and the quality and detail of replies improved steadily. The most important data-deficiency seems to have been where answers were reasonably accurate but incomplete; all questionnaires were checked immediately after being filled in, however, and doubtful or improbable answers were sent back to respondents for checking.

6.2 Poverty and Underdevelopment in Lower Roza

On the whole, households surveyed were very poor. The average household income in the sample was R152 per month, distributed over an average of 5,7 permanent residents in the district. About 76% of households fell below estimated Household Subsistence Levels for rural Transkei of

around R187 per month in late 1983 - in other words, they lived in poverty and would on the average be unable to fulfil their basic needs from their incomes. (These estimates are based on the calculations of Potgieter (1982: 39-41), allowing for inflation and differing household sizes). Only 12% of households exceeded Household Effective Levels, 150% higher than the more conservative subsistence figures (ibid, 5-6).

The distribution of income between households was highly unequal. The top 10% of households earned 32,9% of total income (averaging R410 per month), while the poorest 10% earned only 1,87% of total income, averaging R27 per month. Families this poor find it difficult to afford food apart from simple mealie-meal, samp and porridge, clothing is a luxury and schooling costs quite beyond their range - thus ensuring that the legacy of abject poverty will be passed to the next generation.

Furthermore, it appears the reasons for low per capita incomes were very closely related to the positions of household members in the labour market, and only secondarily to demographic factors. The poorest households were slightly larger than rich ones, but they lacked full-time workers, their workers were badly paid (differentials of 3: 1 between mean worker earnings in rich and poor households) and migrants from such households often don't remit any earnings.

As is described below, most households expressed the desire for employment or more productive employment and many have members who spend long hours in activities yielding a very low output, but which are often necessary for household survival. More fortunate job-seekers find jobs in the Transkei government or South Africa, but it appears migration

from the Qumbu district to South Africa is remaining constant and perhaps falling while new job-seekers move onto the labour market every year. In short, Lower Roza as a subsection of the Qumbu labour market is facing an unemployment problem which is likely to escalate in the near future, and is thus a suitable area for testing whether the CPS techniques can be used to understand local employment problems and help to find solutions to them. The discussion here is based on the analysis of the CPS in section 5.3 above.

6.3 Economic Activity in Lower Roza

6.3.1 WORK-ACTIVITIES IN THE WEEK PRECEDING THE SURVEY

The 200 households considered themselves to have 1390 members of which 262 are normally absent from the area (migrant workers, job-seekers outside the district, families of workers) but 42 were present at the time of survey. Most of the latter claimed they had jobs to return to and would be "on holiday" for less than two months; accordingly they have been omitted from the discussion below (this follows CPS practice as outlined in the Manual (CSS, 1982a: 8)).

As can be seen from Table 6.1, the 'permanently present' population above the age of 15 and not attending school full-time came to 429 people in late 1983, 41 of whom had local 'formal sector' employment at the time (ie reasonably permanent jobs). The object of unemployment analysis, then, is the other 388 people, 104 men and 284 women, who had varying degrees of economic involvement in 1983.

Table 6.1 Breakdown of the Lower Roza Population

	Total	Male	Female
Total population	1 390	674	716
'Permanently' absent	262	178	84
'Permanently' present	1 128	496	632
Aged 0-15 or at school full-time in 1983	699	365	334
Local formal sector workers	41	27	14
Local people older than 16 and 'available' for work	388	104	284

Three distinct forms of 'work-activity' were defined in the questionnaire, and interviewers questioned respondents about them in great detail:

i) Small-scale production of commodities for sale (for example, knitting jerseys or brewing beer);

ii) Temporary wage-labour (child-care, washing or helping to build huts, usually paid on a daily basis);

iii) Other productive activities not earning cash incomes, of which the most important were cultivation of maize fields, tending vegetable gardens and herding livestock. Very few of these producers claimed to sell much produce.

Total estimated hours spent on these three forms of work in the week

before the survey were collected. While very approximate[1], they do appear to be of the correct order of magnitude, and are reproduced in Table 6.2.

Table 6.2 Total hours worked in week prior to survey

	Number of People:		Hours worked
	Total	%	
	141	37,5	0
	32	8,5	0 - 4
	115	30,6	5 - 24
235	44	11,7	25 - 34
	26	6,9	35 - 44
	18	4,8	45+
	376	100,0	

N = 376 (12 cases missing[2])

As can be seen from the table, 235 people (59 men and 176 women) had done some work in the week preceding the survey, where 'work' is defined to include all three of the activities described above (Definition 1). These total 62% of the 'permanent' residents of Lower Roza without formal sector jobs.

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1. In any event, to the extent that they are incorrect, they are likely to be understated rather than otherwise (see section 3.1.2 above on time-use surveys).

2. Hours of work carried out by these 12 people were not obtainable. According to family members, most had done very little work - if any - during the survey week, and it has been assumed in the analysis that they did no work at all in that week. The bias in the figures is unlikely to be substantial.

On the other hand, if 'work' is defined as including only production of commodities for the market or wage labour (Definition 2, including only activities i) and ii) above and excluding non-market oriented activities), the position is very different. According to data collected, 75 people (24 men, 51 women) were active here in the week preceding the survey. Their hours of work in that week are given in Table 6.3.

Table 6.3 Total market-oriented hours worked in week prior to survey

Number of people:		Hours worked
Total	%	
0	0	0 - 4
31	41,3	5 - 24
25	33,3	25 - 34
11	14,7	35 - 44
8	10,7	45+
75	100,0	

N = 75

The estimated incomes earned in these activities were very low indeed. They varied between R2 and R50 per week, but were unequally distributed, with 78% of workers earning less than R15 per week. The median income was about R8,20, or R1,20 per day. While likely to be highly inaccurate, these figures can give an idea of the importance of the informal sector to households - such earnings totalled about 16% of household incomes for the sample as a whole, and for 22% of households came to over half of total income.

In addition to activities included in Tables 6.2 and 6.3, most adult women claimed to spend 4 - 5 hours per day cooking, half an hour per day collecting wood and 1 - 2 hours per day collecting water (the latter two items fall under the United Nations definition of contributing to GNP; see Anker, 1983: 712f), as well as carrying out various home duties (cleaning, childcare, caring for and feeding old or disabled family members, etc).

Finally, it should be borne in mind that the survey was carried out in late November and early December in the year after a major drought. Many households had decided not to cultivate fields in the coming year, a large number of cattle and sheep had died, and it thus seems likely that the time spent on agricultural activities would have been substantially lower than in a 'normal' period of good weather. On the other hand, more time may have been allocated towards small-scale market-oriented activities.

6.3.2 JOB-SEARCH CHANNELS

There is 'formal sector' work in Lower Roza only for a handful of people with capital (eg small stores), skills (eg builders) or both. Most formal-sector job-search thus takes place in Qumbu town (4 - 10km away), the local metropolis.

Labour market channels available to workers in Qumbu are few and rigidly structured along sex, education, experience and other lines. Furthermore, the queues in which workers can search for jobs are limited in number and type. They include: i) looking for formal jobs in the

district; most of these are in the Transkei Government (46%) and tend to require formal applications and educational qualifications; ii) looking for jobs elsewhere in Transkei (expensive and not very successful), also mostly in government service; iii) mining jobs in South Africa via the Employment Bureau of Africa (TEBA) which has a Qumbu office; and iv) being allocated work via the local labour bureau. The only other job-search option is illegal migration to South Africa.

For men, iii) and iv) are available, but involve queueing with hundreds of others at the labour bureau or TEBA for about a day a week; Qumbu seems not to be allocated migrant jobs for women. Otherwise, job-searchers are forced to look for jobs inside Transkei. If they have some education (preferably at least Matric) they may find lucrative jobs in government or some private firms (such jobs are in scarce supply and regarded as highly desirable); otherwise they are forced into poor jobs in commerce or agriculture. There is often some local work with long hours paying about R1 - R1,50 per day; these jobs are usually not long-lasting and are seen as temporary expedients.

6.3.3 WORKSEEKERS[1]

At the time of the survey there were 35 people (21 men and 14 women) who fulfilled the CPS unemployment criteria before the hours worked cut-off is applied. Most of these were 'economically active' in the sense of having carried out one or more of the three forms of work-activity

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1. A 'workseeker' was defined as anybody who had made any effort at all to find work in the past month. The most popular methods used by these 71 people was canvassing employers (46% of job-seekers regarded it as the most important method), followed by enquiries through family and

discussed above.

Job-seekers had, on the average, done somewhat less work in the past week than other physically able people. In the week before the survey, seven (20%) had earned cash incomes averaging R11, while the rest claimed to have earned no money. On the other hand, there were 24 (68,6%) who claimed to have done some work as defined in section 6.3.1 above, 21 in agriculture only. Their approximate work-hours are given below:

Table 6.4 Hours worked by Workseekers in week prior to survey

Number of workseekers working as per Definition 1 (including market and non-market activities)		Number of workseekers working as per Definition 2 (including only market-oriented activities)	Hours spent working	
Total	Percentage	Total		
11)	31,4	0	0	
4) 15	11,4	0	0 - 4	CPS 5 working hours per week cut-off for unemployment
13	37,1	3	5 - 24	
4	11,4	2	25 - 34	
2	5,7	1	35 - 44	
1	2,9	1	45+	
35	100,0	7		

If Definition 1 of work is used, 15 people are unemployed as per the CPS definition. If only market-oriented activities are counted as work (Definition 2), the number of unemployed persons includes 13 more people

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friends (26%), waiting at the labour bureau or TEBA office (18%), and applications by letter, usually to government (10%). It is uncertain how strict the CPS job-search criteria are. In the CPS Manual, however, there appears the rather intriguingly restrictive comment: "Only persons who are really looking for work and who have made a definite effort to find work ..." must answer the questions on unemployment" (CSS, 1982a: 22, emphasis in original).

who worked more than five hours in subsistence agriculture but did no market-oriented work in the week before the survey, and swells to a total of 28.

The problem here is that due to the fragmented and incomplete nature of the Qumbu labour market, most job-search activities can be carried out at the same time as other work, for example informal sector production, casual wage-labour or agricultural work. Job-seekers don't look for jobs full-time as it's not worthwhile spending more than a limited amount of time each week searching. Furthermore, there were eight people sampled with poor local formal sector jobs were also actively looking for work (ie fulfil the other unemployment criteria), all of which were earning below R100 per month.

In short, then, apart from illegal migration to South Africa and job-search elsewhere in Transkei, the unemployed can function most successfully while working temporarily or on a month-to-month basis while searching for better jobs. Accordingly, the limit of five hours worked in the past week distinction between unemployed and employed seems entirely false - in fact, any such distinction is false given that full-time job-search is not much more likely to produce jobs than part-time search.

6.4 The CPS Analysis of the Lower Roza Labour Force

How would the CPS be likely to analyse the employment situation described above?

6.4.1 THE CPS AND WORK IN LOWER ROZA

As observed in section 5.3.5.2, the CPS definition of economic activity is intended to be fairly broad, including all activities which earn money income for the household, and subsistence activities which provide food. In other words, it should include all three forms of work described above; this has been termed Definition 1 of work. If this definition is applied to permanent Lower Roza residents in the sample, the following is the situation:

Table 6.5 Work in Lower Roza: Definition 1

		Total	Male	Female
Labour force:	formal	41	28	13
	informal	235	59	176
	unemployed	15	9	6
	Total	291	96	195
Economic activity rates[1]:		67,8%	72,7%	65,7%
Unemployment rates:		5,2%	9,4%	3,1%

As argued earlier, however, it is most unlikely that the CPS would arrive at these figures, bearing in mind the brevity of the questionnaire, the 'key-word' nature of questions about work and the fact that it makes no specific mention of non-market, 'subsistence' activities.

An alternative estimation (Definition 2 of work) is to look only at

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1. Defined as the percentage of the population above the age of 15 working for more than one hour in the week before the survey.

market-oriented activities. In this case the position is as in Table 6.6:

Table 6.6 Work in Lower Roza: Definition 2

		Total	Male	Female
Labour force:	formal	41	28	13
	informal	75	24	51
	unemployed	28	16	12
	Total	144	68	76
Economic activity rates:		33,6%	51,5%	25,6%
Unemployment rates:		19,4%	23,5%	15,8%

These results appear to be much closer to what the CPS is trying to do; they are also in reasonably close conformity to some of the overall CPS results for African areas. Note, for example, the much lower economic activity rates for women than men as compared to Definition 1, and their substantially higher unemployment rates. The total size of the labour force has fallen by 50,5%, and for women by 61%.

Many of the income-earning methods included above are very small, for example women spending an hour per day weaving baskets and earning R3 per week from their sale. These appear to have been picked up in the survey because the questionnaires were very detailed, asked about all income-earning activities, and interviewers often knew the respondents personally and could ask them about activities they had not mentioned. The CPS on the other hand is likely to exclude many low-earning or intermittent activities in practice, even where they fall into the

formal definition of work used. Thus Definition 3 of work includes only the top 60% of market-oriented informal earners included in Definition 2. The relevant results using this definition are shown in Table 6.7.

Table 6.7 Work in Lower Roza: Definition 3

		Total	Male	Female
Labour force:	formal	41	28	13
	informal	43	16	27
	unemployed	30	18	12
	Total	114	62	52
Economic activity rates:		26,6%	47,0%	17,9%
Unemployment rates:		26,3%	29,0%	23,1%

Again, the unemployment rate rises substantially, and economic activity rates for women fall considerably as they tend to earn less and be involved overall in less lucrative activities than men.

6.4.2 CONCLUSION

Different definitions of work lead to radically different economic activity and unemployment rates when applied to data from the Lower Roza survey. The broader the definition of work used, the larger the labour force and the lower the unemployment percentage because most people included as unemployed engage in job-search activity while doing temporary work. In practice, the CPS appears to use a fairly narrow work-definition and its remarkably low unemployment rates probably result, in part, from a strict application of the job-search criterion in the

unemployment definition.

As suggested in section 5.3.5.2, a useful way out of the labour force impasse described above might simply be to use several definitions of 'work' - at least Definitions 1 and 2 above, as well as formal sector workers - and acquire measures of incomes, economic activity rates and perhaps unemployment rates (for example, people active in the informal sector while looking for formal sector jobs) for each. This would give a far better picture of development needs and the demand for work for planning purposes, but would require thorough research and a complete restructuring of the CPS questionnaire.

6.5 Testing the Usefulness of the CPS 'Unemployment' definition

It was argued in section 5.3.5.4 that the strict definition of open unemployment used in the CPS might not be applicable where labour markets are highly imperfect and are segmented along racial, sexual and other lines, where channels for job-search are limited, where it is usual for old people to work, and so on. Three focuses of criticism are discussed below, and the effects of each on unemployment definitions used are measured.

6.5.1. THE 'DISCOURAGED UNEMPLOYED'

The definition of 'discouraged unemployment' depends crucially on poor and inflexible labour markets, on people not having searched for jobs in a specific time-period due to the belief that none were available. This is not unreasonable; women, for example, are discriminated-against in

the Qumbu labour market and those with less than a Standard Six education are most unlikely to find reasonably permanent jobs, and agricultural and informal sector earnings are very low. The people in Table 6.8 below, then, fulfil most of the CPS unemployment criteria (they want work, they fall within the prescribed age-limits and can begin jobs within a week) but haven't searched for jobs in the past month and accordingly would be classified by the CPS as non-economically active.

Table 6.8 Unemployment: Measuring the 'Discouraged' Unemployed

Measuring the 'discouraged unemployed'	Unemployment as measured by:								
	Definition 1			Definition 2			Definition 3		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Numbers of people unemployed	15	9	6	28	16	12	30	18	12
Number of 'discouraged unemployed'	6	1	5	18	8	10	19	9	10
Unemployment rates proper	5,2%	9,4%	3,1%	19,4%	23,5%	15,8%	26,3%	29,4%	23,1%
Unemployment rates including the discouraged unemployed	7,1%	10,3%	5,5%	28,4%	30,7%	26,4%	36,8%	38,0%	35,5%
Increase in unemployment rates after including the discouraged unemployed	36,5%	9,6%	77,4%	46,4%	30,6%	67,1%	39,9%	31,0%	53,7%

It can be seen that there are many people in the Lower Roza sample who can be regarded as 'discouraged' unemployed, varying in total between 40% and 63% of the unemployed proper. Most are women; men appear to feel they will find a job eventually if they queue for long enough (though they may spend only a few hours a week looking for work), while women get disillusioned far sooner. If 'discouraged' women are included in the definition, the female unemployment rate rises by 50 - 80%.

6.5.2. JOB-SEEKERS WHO CAN'T BEGIN JOBS WITHIN ONE WEEK

Where jobs are scarce, people are likely to make commitments which they can't break in the short run, and may be unable to begin work within a week as the CPS unemployment definition requires. The table below measures people who fulfil most of the CPS unemployment criteria (including having searched for work in the past month), but could only begin jobs within three months.

Table 6.9 Unemployment: Measuring inability to accept jobs within a week

Measuring the inability to begin jobs within a week	Unemployment as measured by:								
	Definition 1			Definition 2			Definition 3		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Numbers of people unemployed	15	9	6	28	16	12	30	18	12
People filling unemployment criteria but can't begin jobs within a week	3	1	2	5	1	4	5	1	4
Unemployment rates proper	5,2%	9,4%	3,1%	19,4%	23,5%	15,8%	26,3%	29,4%	23,1%
Unemployment rates including people who can't begin jobs within a week	6,1%	10,3%	4,1%	22,1%	24,6%	20,0%	29,4%	30,2%	28,6%
Increase in unemployment rates after including people who can't begin jobs within a week	17,3%	9,6%	32,3%	13,9%	4,7%	26,6%	11,8%	2,7%	23,8%

Numbers here are smaller than those of 'discouraged' unemployed, but range between 16% and 31% of the unemployed. Again, most people affected are women, indicating that more female job-searchers enter commitments which can't be broken at a week's notice than men. All the women gave 'family commitments and children' as reasons for being unable to

accept jobs soon, but most indicated that if offered a reasonable job, they would be able to organise friends or relatives to take their place within a few weeks. The sole man here was involved in a court-case at the time of survey.

6.5.3 THE UNEMPLOYMENT AGE-LIMITS (for men, 16-64, for women, 16-59)

A number of people outside these age limits claimed to be looking for work and again fulfilled all other unemployment criteria. Those older than the CPS age-limits are given in Table 10[1]:

Table 6.10 Unemployment: Measuring Old Job-seekers

Measuring old job-seekers	Unemployment as measured by:								
	Definition 1			Definition 2			Definition 3		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Numbers of people unemployed	15	9	6	28	16	12	30	18	12
Over-age people filling unemployment criteria	0	0	0	9	3	6	10	3	7
Unemployment rates proper	5,2%	9,4%	3,1%	19,4%	23,5%	15,8%	26,3%	29,4%	23,1%
Unemployment rates including over-age people	5,2%	9,4%	3,1%	24,2%	26,8%	22,0%	32,3%	32,3%	32,2%
Increase in unemployment rates after including over-age people	0	0	0	24,7%	14,0%	39,2%	22,8%	11,4%	39,4%

1. Those under-age were not tabulated as it seems they have very little chance of finding any permanent work. Twelve 15-year olds, six male and six female, did not attend school in 1983. Most of these did some work in the week preceding the survey; one would have counted as unemployed under Definition 1 of work, and two under Definitions 2 and 3. It appears these have been eliminated from CPS unemployment due to the changed age-limits accompanying the new sample (see footnote 1 on page 151).

The over-age job-seekers came to as many as 33% of the unemployed; most of these were women. All engaged in other work activities at the same time as looking for jobs, probably because they realise their chances of finding work are small. Almost all had low levels of education but some work experience.

Of the 235 people involved in all forms of informal sector work in the week prior to the survey (Definition 1 of work), 17% (40) were above the CPS age-limits for unemployment, and if only market oriented activities are counted (Definition 2), 24% were above these age limits. (These figures will probably be higher than for urban areas). Considering how many of the old work, it seems problematic to exclude the work-seekers among them from the definition of unemployment as their demand for work (and the need for income) is clearly considerable.

6.5.4 CONCLUSION

The unemployment definition used in the CPS does not mean very much as it excludes a large number of people (sometimes almost as many as those actually unemployed) whose demand for work and income seems legitimate. Furthermore, would-be workers analysed here don't span the entire problem, as there are other categories of people yet further from the formal labour market who would also like work and need income. These include people who can't begin work within three months but would be keen to work thereafter (a 'latent' labour force), children below the age of 16 who have left school and desire work or scholars who work unproductively in the afternoons, women who can't work at the moment because they have children to look after and can't afford to hire anybody to do so, but

would work if they had access to child-care facilities, and so on.

These demands for employment and income are not expressed through the formal labour market - which in Qumbu is highly deficient - and accordingly are not picked up by the CPS which is strongly market-oriented (see the suggested assumptions behind it advanced in section 5.3.5.1). The highly Westernised unemployment definition makes assumptions about efficient labour markets, the efficacy of job-search, reasonable pensions for the aged and so on which are quite invalid for most of the Lower Roza population.

6.6 Data on Incomes

The above discussion has tended to take the figures collected on Lower Roza household incomes for granted. In actual fact, despite much questioning, the income figures collected are unreliable. This is the case for several reasons:

i) Informal sector earners could usually remember what they had earned in the past day or two, but the question about the past week they found difficult to answer, and they found it quite impossible to remember monthly incomes. It seems these questions in the CPS will be either not be answered, or earners will guess answers at random.

ii) 'Subsistence' incomes for the week or month before the survey could obviously not be obtained. Instead, estimated yearly incomes were calculated and allocated across weeks on a pro-rata basis. This, of course, assumes work-inputs are the same throughout the year. The CPS

probably ignores such incomes (see section 5.3.5.6), yet in the survey they came to 8,2% of total household earnings, and for 14% of households made up over 50% of income.

iii) A sample of people in productive self-employment was selected (21 people out of about 75 altogether) and questioned in detail about incomes, time-spent in production, costs and so on. Estimated incomes here ended up about 16% lower than in the general questionnaires, and even these incomes were probably an overestimation. This accuracy problem is likely to be worse in a very brief general questionnaire.

iv) A number of households had very small-scale 'strategies of survival', including doing favours or casual jobs for neighbours and getting a meal in exchange, small children running errands in return for a pot of mealies, and so on. These transactions were not thoroughly covered in the survey.

v) Finally, the 41 local formal sector earners were questioned about 'secondary occupations' from which they earn income at the same time as their main jobs. Three of them claimed to have earned incomes in this fashion in the past week, averaging R14. In two cases, these activities (home mechanics and building) had nothing to do with their main jobs, and raised their personal incomes by an average of about 30%.

None of these individuals mentioned their secondary occupations when asked about their weekly incomes, and gave only the incomes from their main jobs. Only after mentioning their secondary work and being specifically asked about earnings therefrom, did they add such earnings onto

their main incomes. The CPS does not inquire about secondary occupations or incomes earned from them, and thus probably misses a fairly widespread aspect of economic activity.

6.7 Confusions in the CPS Methodology

The above results indicate the confusions implied by the CPS methodology when it is applied to a peri-urban area in South Africa[1]. In particular, it seems uncertain which economic activities the CPS does measure in practice, and how effectively.

At the centre of the confusion is the informal sector. The greater the extent of subsistence agricultural and small-scale market-oriented work in the local economy, the more ambiguities are likely to creep into the definitions of 'economic activity', 'unemployment' and so on, and the more meaningless these aggregate indices become.

In urban and peri-urban areas in the 1980s, casual work is likely to become increasingly important in bringing households some income. The more this is recorded, the larger the labour force will be and the lower the extent of unemployment. Bromberger discusses survey results in Vulindlela (near Pietermaritzburg) for July 1982 which indicate that whereas 19,5% of the labour force surveyed wanted jobs at the time but didn't have jobs, most had carried out casual work activities for over

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1. Lower Roza may be rurally-situated and lacking in infrastructure and official authorities, but is far more urban than rural in character. It tends to function as a 'suburb' of Qumbu, with people living there and commuting to Qumbu each day, and within the area non-agricultural activities are far more important than agricultural ones.

five hours in the past week. When the "full rigours" of the CPS definition are applied to his data, the unemployment rate falls to 6,8% (1984: 3-4). He suggests a massive expansion of casual work all over South Africa in the 1970s and 1980s may explain the difference between low CPS unemployment rates and higher rates discovered by private researchers using less rigorous work-hours tests.

This argument is doubtful for two reasons:

i) The extent of part-time employment. The most recent published figures on weekly hours worked by African workers in South Africa are as follows:

Table 6.11 Weekly hours worked by African workers: The CPS, June 1981

Hours worked	Percentage of workers:		Number of workers:	
	Male	Female	Male	Female
0	0,6	0,8	21 852	12 512
1 - 4	0	0	0	0
5 - 14	0,2	1,7	7 284	26 588
15 - 24	0,2	2,8	7 284	43 792
25 - 34	0,4	2,4	14 568	37 536
35+	98,6	92,3	3 591 012	1 443 572
Total	100,0	100,0	3 642 000	1 564 000
5 - 34 (total)	0,8	6,9	29 136	107 916
Unemployment total			233 000	205 000

(CSS, 1982b: 54)

The number of workers engaged in part-time work compared to the CPS unemployment measurement is negligible, especially for men. Further-

more, 98,7% of men and 96,2% of women claimed to work 5 - 7-day weeks (ibid, 51). Counting short-time workers as part of the labour force would certainly not reduce the unemployment rate substantially, as hypothesised by Bromberger (and as may also seem plausible from the discussion about workseekers in Lower Roza, above).

ii) The absolute size of the labour force as per the CPS is not much higher than that recorded in the Quarterly Bulletin of Statistics for most areas of the economy, and almost all casual work would not be covered in the QBS figures (see Chapter 5 above). Exact classifications and comparisons are vague and difficult (see Simkins, 1979, 1981: 8-12, 57-8), but the major divergencies as of June 1981 appear to be in:

Construction: CPS figures are about 18% lower than those of the QBS (265 000 compared to 311 800). This is odd and probably indicates the informal sector activities in construction (eg rural building operations) are not covered.

Commerce: CPS figures at 583 000 (including 235 000 women) are about 67% higher than those of the QBS, and probably reflect more coverage of the informal sector, especially full-time female hawkers (Simkins, 1981:10).

Services: the figures are not comparable, and depend on the size of domestic service and other activities, but again probably include some full-time informal sector work.

In agriculture, on the other hand, while data is not comparable time-wise, it seems the CPS figures are only about 10 - 15% higher than those

in the 1978 Agricultural Census, which focusses on non-African agriculture and some larger African enterprises.

In short, it seems the CPS probably excludes workers in subsistence agriculture and most non full-time informal sector workers from the labour force (this could probably be checked via cross-tabulation of occupations, industries and regions in the CPS). Whereas almost all the area studies at the 1984 Carnegie Conference on Poverty and Development in South Africa showed that large numbers of African women from poor households are busily economic active as a rule, regardless of the area or time of year, in the CPS, the economic activity rates and unemployment rates of residents of the 'national states' are remarkably low.

Problems of 'discouraged unemployment' and people unable to accept jobs within a week are likely to be less severe in urban areas of South Africa than in Lower Roza. For example, in a study of unemployment among 'Coloured' households in Bishop Lavis (Cape Town), Blau & Thomas et al found the 'discouraged unemployed' to be around 18% of the magnitude of unemployment, and people unable to accept a job within a week were another 1% of unemployment (1982: 18-19).

The results above indicate that most people in Lower Roza are 'economically active', more or less. This was discovered via an extensive questionnaire combining a broad 'time-use' approach to activities engaged in during the past year (it probably understated total time spent in such activities, but not their incidence), and detailed questions about market/non-market activities over the past week. This appears to have yielded reasonably complete results. By contrast, a simple 'key-word'

questionnaire like that of the CPS would not have worked as well, and would probably have disregarded many local income-earning activities.

In practice, it seems the CPS results of low unemployment and high non-economically active rates may occur via: i) respondents being (implicitly or explicitly) asked whether they have jobs or work full-time; casual work and women's part-time economic activities are probably omitted; ii) only monetised work may be covered; iii) far too many women may be included as 'housewives' even when they are actively searching for work, either because it is a very 'easy' and socially acceptable answer to give, or because of interviewer bias; iv) the de facto job-search criteria applied may be too strict.

The last factor may be critical in reducing unemployment figures from those of private researchers to levels quoted by the CPS (whereas points i) and ii) would tend to increase them). Much African job-search is very informal (enquiries via family and friends, day-to-day questioning of workers from particular firms, and so on), and where CSS stresses the importance of this criterion, interviewers may interpret it as meaning that only more formal forms of job-search conducted regularly should be included. This appears to depend on the CPS interviewer training and how it is interpreted (see footnote in Section 6.3.3).

6.8 Conclusion: The Utility of the CPS for Basic Needs Planning

6.8.1 INTRODUCTION

All economic concepts discussed above and used in the CPS appear to be

highly definition-sensitive, especially in a poor peri-urban area in which there is little homogenisation of economic activities. This is particularly the case for those which could be utilised for basic needs planning purposes: unemployment rates, economically active population estimates, household incomes, and so on.

Furthermore, as stressed in section 5.3 and highlighted in this chapter, it is uncertain exactly what the 'economic' questions in the CPS are measuring from month to month. Vagueness is unsatisfactory; the CPS should be thoroughly tested (preferably by outside researchers) and such results published before its figures are used for prognosis or polemic.

In general, it seems the CPS is designed to monitor labour resources immediately available for development. This means it has a strong focus on the labour market, the formal sector of the economy and active job-search by the unemployed.

It has been argued above that the simple indices produced by the CPS - the most important being the unemployment rate - are not very useful when applied to Lower Roza people as they are sometimes highly ambiguous and not very meaningful when applied to a reality which does not follow the very rigid assumptions implicit in the CPS approach. The most important area in which the CPS falls short is measuring the demand for work by respondents. In this area, the CPS should not simply rely on the 'unemployment rate', but should have complementary indices looking at other aspects of the demand for work besides that expressed as open unemployment, including discouraged unemployment, people who can't accept jobs within a week but would like work, and old would-be workers.

The actual demand for work is far greater than that measured by the simple CPS 'unemployment' magnitude (whichever definition is used), and any planning policy based on the latter would be exceedingly optimistic. In other words, there is a necessity for several labour market and employment indicators for planning rather than only one which is likely to be misleading.

6.8.2 THE CPS AND WELFARE

The CPS fails to investigate certain important welfare aspects of the employment problem. These are areas about which much needs to be known before effective planning for development is possible, otherwise resulting plans and projects are likely to be disappointing or complete failures.

1. A major problem for the vast majority of Lower Roza households is the large number of 'underemployed' workers - most of those discussed in section 6.3 above are underemployed both visibly (they would like to work and earn more than they do) and invisibly (incomes are low, productivity is minimal and capital severely lacking, much work-time is effectively wasted). It is probable that many would prefer formal sector jobs, but their chances of finding such work are minimal.

In this respect, an approach focussing more on time-use and on economic activities undertaken by people would be far more useful and meaningful than the simple CPS 'labour force' approach. The CPS ignores a wide variety of activities which are central to the economic welfare of the households engaging in them, and which may have some development poten-

tial.

2. Women in Lower Roza spend much or most of their time working - sometimes for the market, on growing or preparing food, in childcare, carrying wood and so on. All these are not covered in the CPS. Women's work may be temporary, intermittent and earn low incomes, and women themselves may regard it as secondary to 'housewifing', but it has important economic implications and in fact is often the determinant of the welfare of other household members (children, old parents etc).

Implicit in the CPS is a view of 'development' as a move towards formal sector work,, or wage labour. Women in the 'traditional' sector are regarded as neutral and irrelevant to this process of economic development. In actual fact 'formal sector' development in Lower Roza could well worsen the economic position of these women by undercutting the rural informal sector and reducing the income-earning capacity of the very poor - which is again not covered in the statistics. Any effort to develop an area like Lower Roza while regarding the majority of the local population as 'non-economically active' in this fashion would be disastrous, firstly because women are an important poverty-group whose economic position desperately needs to be improved, and secondly, because their time is limited. For example, most women could only get involved in local development projects if they have some childcare facilities, food which can be purchased and prepared reasonably cheaply and easily, an available energy source (firewood, efficient gas, electricity) and water supply, and so on.

3. The ageing poor are a particular problem also not exposed in the

statistics. Many are forced to work long hours due to small or non-existent pensions and no support from children, or because they are bringing up families or grandchildren whose parents are absent, unemployed or have disappeared. Most such families are female-headed and are thus in a particularly weak market position. This group should be another target of poverty-oriented intervention, whether more productive employment is to be provided or pensions are simply to be increased.

4. Another central aspect of the Lower Roza economy which the CPS approach does not capture is that of labour migration. About 250 workers and eight job-searchers - 43% of the population above the age of 15 (see Moll, 1984: 3-4) - migrate outside the Qumbu district, and these workers provide an estimated 33,2% of total household incomes (ibid, 35). The dynamics of this process should be investigated and provide a crucial planning input at the regional level, including levels and types of remittances, effects on the local economy, the spatial distribution of migrants, contribution to household incomes, etc.

5. The CPS also fails to deal adequately with the economics of rural households, and doesn't provide a measure of household income or welfare. As observed elsewhere, the level of household income and its distribution within the household is the 'crucial economic welfare indice, and should be a central target of basic needs-oriented development planning.

The survey for example found that 33,2% of total Lower Roza household incomes came from migrant remittances and another 17,2% from pensions or disability grants. These income sources are not covered in the CPS,

largely because of its focus on individuals within households rather than as parts of households, such that non-work sources of income are omitted. In most areas of South Africa, a substantial proportion of incomes is likely to be derived in this fashion, but these welfare components are not covered by the CPS.

It is clear that the employment problems discussed here - widespread underemployment, poor labour market channels, poverty constraining job-search, lack of urban rights and hence severely restricted labour mobility, etc - are above all rural or squatter-settlement problems. They are probably more important and affect more households than the simple open 'unemployment' indice - or certainly as measured by the CPS. If they are to be an object of policy, they urgently require indices of measurement. The logical implication of this is that much of the population facing the severest employment problems in South Africa will in fact be in African areas, either 'national states' or (and even more so) 'independent states'. These areas should be a priority for regional investigation and research.

6.8.3 THE CPS AND DEVELOPMENT

Some of the 'basic needs' indicators described in the above section could be covered fairly simply in the CPS, for example, by regular supplements (discussed in section 5.3.7). Most of the above factors - for example, work, would-be work and job-search by the aged - need not be covered every month in a survey like the CPS; a six-monthly or annual supplement would probably suffice. Furthermore, it is clear that the CPS could provide much better data on household and individual

incomes than at present, and a supplement on incomes would again provide useful data, along the lines discussed in section 5.3.7 above.

In short, it can be argued that the CPS structures could be exploited far more than at present to provide useful data about the welfare of the poor. A precondition for this, however, is that the sampling, 'key-word', interviewer and other weaknesses in the CPS first be confronted and solved.

The CPS, however, certainly cannot fulfil the requirements about welfare-oriented data needed for basic needs planning. On the one hand, this would require exceedingly long and detailed questionnaires; on the other hand, many issues are relatively small-scale or specialised, and require different or more in-depth studies; finally, it is uncertain whether the CPS sample is adequately representative of the poor.

For example, though the CPS could provide better data on incomes (and household incomes) than at present, the nature of the data required, the delicateness of the topic and the difficulties in measuring non-monetary income appear to demand a completely different kind of incomes survey. Some form of rural household incomes study investigating the determinants of income, resources available to rural households and the income-earning channels available, seems urgently necessary. This could be done best, perhaps, as an 'outside' study done over a period of at least three years. For accuracy it should also differentiate between various forms of income and time-periods over which they are earned; for the informal sector, a one to three day period might be suitable, for formal sector work, one week or month might be appropriate, while households

might receive migrant remittances only every three or six months.

Other areas include more in-depth studies of underemployment and labour utilisation over different stages of the year to pick up seasonal or other vissicitudes; investigation of the dynamics of labour migration; in-depth studies of the problems of rural women; the urban and rural informal sectors. (See the next chapter for further discussion of these themes.)

As suggested earlier, these studies are necessary on the one hand because the CPS gives a particularly one-sided view of labour resources requiring development. On the other hand, however, they should reveal groups suffering from particular forms of basic needs deprivation which the CPS cannot do adequately. In the Lower Roza area, particularly deprived groups include rural women without education and without male wage-earners in the family, or whose family members don't remit income, old people (often without pensions, or with many dependents) who are forced into work, and very poor households which can't afford the cash-costs involved in education, reasonable clothes, food and other basic necessities.

Finally, however, it should be noted that the overall constraint facing would-be Qumbu workers is the migration/influx control system. At almost every level, incomes earned in South Africa (or in the Transkei government) are higher than those in the informal sector or in agriculture, and the behaviour - and hence underemployment/job-search situations - of individuals in this sector is ultimately a function of how this system is run. For example, a relaxation of influx control would

probably lead to much higher rates of urban open unemployment, lower rural underemployment and higher rural work-incomes, and an expanded urban informal sector. Hence it is clear that all the measures of underemployment and unemployment discussed above are crucially dependent in meaning and magnitude on prevailing national political structures.

Boswell - Sir Alexander Dick tells me, that he remembers having a thousand people in a year to dine at his house ...

Johnson - That, Sir, is about three a day.

Boswell - How your statement lessens the idea.

Johnson - That, Sir, is the good of counting. It brings every thing to a certainty, which before floated in the mind indefinitely.

- From Boswell's Life of Johnson, 18 April 1783.

CHAPTER SEVEN RESEARCH PRIORITIES FOR REGIONAL PLANNERS

7.1 Introduction

Most important sources of South African manpower statistics were discussed in Chapter 5. They were analysed in terms of coverage, utility and whether they could be adapted for regional purposes. It should be noted, however, that they face two further lines of questioning. Firstly, theories of development differ, and data measured in terms of one theory may be quite inadequate for another; and secondly, the accuracy and value of development-oriented statistics acquired depend crucially on the specific uses to which they are put (Webb, 1976:1).

Now it is possible the Regional Development Advisory Committees discussed in the 'Introduction' to Part Two of this report will establish their own data-collection bodies and acquire data independently of (or perhaps in conjunction with) Central Statistical Services, by region. It certainly seems this may be necessary if regions are ever to plan as autonomous entities. Such data should be explicitly policy-oriented, designed as an input into the overall development effort within each

region. The discussion below examines some possible forms which regional development efforts could take, and the knowledge requirements of each.

It is essential, however, that these suggestions be seen in the correct context. Regional data sources should not be designed to:

a) monitor development progress in the short run; or

b) evaluate local development projects taking place within the regional framework.

On the other hand, they should:

a) monitor development progress in the medium to long run;

b) provide an empirical basis for allocating resources for development projects;

c) identify problem areas, groups or strata within the region, particularly groups of people suffering basic needs deprivation;

d) provide an overall framework or data base for local project evaluation and comparison; and

e) allow monitoring of the effects of national economic policy vis-a-vis regional employment, for example economic growth policy, the distribution of state expenditure or state demand manipulation. It is of course crucial that the 'national/independent states' should be thoroughly covered within each region.

In short, data collected should be able to delineate regional employment problems clearly, provide a data base for action, and enable the progress of such action and intervention to be monitored on an ongoing basis. This is also necessary to assess the effectiveness and efficiency of employment programs compared to each other, and to identify the area and groups over which the programme is having its effect.

In practice, it would be essential that separate project evaluation at the ground-level take place while the regional data program is functioning (see Deboeck & Kinsey, 1980, especially 6-11). It seems regional research and data produced should provide a link between actual projects (with their own evaluation requirements) and the regional economy and regional planning as a whole.

7.2 Employment Problems and Research in South Africa

7.2.1 EMPLOYMENT, DEVELOPMENT AND REGIONAL PLANNING

This report has stressed the need for an employment-oriented approach to development. Employment problems, however, can vary considerably between regions or local labour market areas. They might include any or all of the following: overall job deficiency (more jobseekers than jobs available), deficiency of jobs for women or school-leavers, mismatch between skills offered and labour demanded, lack of workseeker occupational guidance and information on jobs available, problems of low pay, unstable incomes earned and poor employment conditions (Needham, 1979: 102-3).

This affects the nature of research and planned development programmes. National measures to measure and reduce unemployment problems will have more effect in some local labour markets than others, and might not help areas with very specific unemployment problems. Hence, "local employment programmes should be especially designed to be appropriate to the local employment problems and to the conditions in the local labour markets" (Needham, 1976: 1). It should also be borne in mind that, whatever the causes of unemployment, local methods of intervention are likely to have a beneficial effect: local employment will go up. Indirect ways of tackling unemployment problems are useless unless the causes of these problems are known, for example low levels of education in an area with many skilled vacancies or an absolute shortage of jobs open to women.

Furthermore, an employment-oriented approach to development can provide for the needs of poverty groups in ways unavailable to other development efforts. Whereas efforts at developing via market institutions, extension facilities and other forms of service provision almost invariably end up benefiting better-off groups, the attraction of providing jobs aimed at the poor and deprived groups is that the bias towards the rich is almost by definition overcome (Harvey et al, 1979: 88-90).

This chapter discusses how regional statistical sources could be developed and kept up-to-date, in terms of possible plans of action. This implies that data pertaining to the immediate future which can be used for present short-run planning should take priority over long-term data. For example, current regional unemployment data is more important

for planning purposes than long-run labour force participation rates. Furthermore, data which can be acquired and put to use most quickly (and which takes less time to process) should be a priority - nothing is worse than planners being "at the mercy of out-of-date figures" (Hofman, 1980: 106). Finally, tradeoffs between representativeness, detail, accuracy, speed of processing and costs should be carefully considered before each statistical investigation takes place.

In Chapters 2 - 4 a variety of possible research programmes for development were outlined, in terms of the basic needs, employment and income priorities outlined in Chapter 1. Below, certain of these will be discussed in more detail and along regional lines, in terms of specific activities which could be undertaken by RDAC's and the Development Bank.

Accordingly, a number of crucial areas of research won't be discussed here:

1. Commercial Agriculture. It is likely that much could be done to increase wages, improve the conditions of work, raise total employment and use more labour-intensive production methods in agriculture. Officially, however, in terms of agricultural support the state seems to be moving in the other direction. For practical purposes, RDAC's will probably have no influence here.

2. Three other areas are also crucial for long-run intervention. All are at present the ultimate prerogative of the central state, and there appears to be little sign that control over any of these functions will be delegated to the regional level in the near future. Furthermore, the

existing data here (see sections 5.8 and 5.9 above) could probably best be improved by expanding the statistical sources already discussed rather than establishing new and expensive regional sources of data. In the long run, however, if regions are to gain control over planning and resources and plan as autonomous entities rather than simply as functional to the more developed parts of South Africa, there areas will need to be confronted:

i) Manpower planning and education. This requires planning future demands for and expected supplies of labour, by region, with implications for educational and training expenditure, the siting of new schools, colleges and training centres, subsidising and encouraging firm in-service training, the training programmes of the public sector and so on. It would require better knowledge about the labour force and its distribution, the current institutions providing education and training, firm's labour forces and expected future labour requirements and their relation to investment and economic cycles. In any event, however, as suggested in Chapters 2 and 4, the role of education in development is often overstressed.

ii) State demand management, industrial development and the regional distribution of state expenditure. This is controlled by the central state at present, channeled largely via industrial decentralisation and presumably RDAC's will influence this in the long run, including helping to determine the location and type of direct state expenditure (for example, on labour-intensive production or industries temporarily short of work).

iii) Labour migration and influx control. This is undoubtedly one of the prime causes of employment problems and poverty in South Africa today. It seems desirable that they be eliminated as rapidly as possible, both for economic reasons (to improve the allocation of labour, the 'fit' between people and jobs, and lessen the extreme rigidities in the labour market) and for moral reasons. In actual fact, however, this heavily political area is firmly controlled by the central state and can only be modified nationally.

7.2.2 REGIONAL RESEARCH PRIORITIES

Three important areas in which research and information is required for planning purposes are outlined below, in decreasing order of importance. These data collection programmes should be seen as complementary to existing statistical sources, and would be aimed explicity at areas which could not be covered properly and efficiently even by improving current statistical methods and coverage (see Section 5.9 above).

1. It has been argued that South Africa has above all an unemployment-low incomes problem which will not be solved unless - in terms of the priorities outlined in Chapter 1 - direct access to employment at a livable income is made available to those people affected. This approach implies there is an absolute work-shortage in the economy, and will involve an investigation into all the aspects of the underutilisation of labour: namely unemployment proper, factors affecting labour force participation and the discouraged unemployed; aspects of the allocation of women's time and work activities; productivity, constraints on it and reasons; incomes, and methods of augmenting them;

fluctuating and occasional workers, etc. This is seen as the most important area in which research is required.

2. Next, programmes to develop the informal sector and small business are discussed. Many observers appear to vastly exaggerate the overall development potential of this area, but it has been given so much emphasis by both the South African government and the ILO that it is discussed at some length. The structural constraints involved (including appropriate products and technology) are also discussed.

3. Problems of vacancies and skilled labour shortages provide another area in which intervention may be possible at a regional level. This will imply a close investigation of formal sector business: vacancies, lengths thereof, occupational disaggregation, new or frictional vacancies, etc. From the worker side, a clearer understanding of job-search, full- and part-time workers, the unemployed who are likely to get jobs, the educated unemployed and work turnover etc, is necessary.

7.2.3 DATA COLLECTION

Research is expensive, especially detailed, local-level research. It should be carried out on a cost-benefit basis: often it might be preferable, expense-wise, to "spend the money on another part of the employment study - or even on the unemployed themselves" (Needham, 1976: 48) rather than waste money on obscure studies which are destined for dusty bookshelves. Likewise, it is necessary that data be collected on a continuous basis; one-off surveys are often not economical. They do not have a suitable sample frame available, require investment in train-

ing, questionnaire design and analysis which is underutilised and soon get out of date (ILO, 1979b: 20). On occasion, one-off surveys are necessary, though: sample design and procedures can be chosen for specific needs, enumerators and staff can be specifically chosen, the survey can be well timed, and can be controlled by a very small team (Casley & Lury, 1982: 54). This can be used for specialised studies or - obviously - for project evaluation.

It is also clear that the kind of research and data needed depends crucially on the size and scale of the proposed development strategy. In agriculture, for example, any form of development based on small-scale peasant farming (whether or not existing forms of land tenure are to be replaced) requires a larger, wider data-base than do smaller, capital-intensive irrigation projects or various forms of strip-farming, while the allocation of (say) public works projects to areas according to households in need would probably require the most research and follow-up.

7.3 Regional Unemployment and Underemployment Problems

7.3.1 PROJECT DIRECTIONS

The following are some examples of mass-based local-level-type projects which seem likely to fall within the scope of the RDAC's:

1. Public works and related programmes. These can be highly labour-intensive (Reynolds suggests under 40% of total cost should be spent on capital and expensive management inputs (1984: 10)), and productive in

the long run (for example land development, road works, irrigation, economic and social infrastructure). They tend to be effective regardless of the causes of unemployment and underemployment by directly providing work and have a fairly area-specific boosting effect on the local economy in terms of employment, incomes and household self-reliance.

It is crucial that the use local capital and skills, preferably developing local resources in the long run. They are fairly expensive, however, and should not be relied on to solve an increasing long-run employment problem.

In a closely related direction, any basic needs development strategy implies provision of state services, with access by all to housing, trasnport, sanitation, basic education, water and health services (see Chapter 1). The channels by which these are provided are important. State-organised enterprises providing the above should, where possible:

i) be small;

ii) use local materials and capital where possible;

iii) have a low capital: labour ratio;

iv) use unsophisticated capital equipment; and

v) use less sophisticated skills (see Ghai, 1980: 369-370).

These could tie in with local employment requirements and especially rural development operations[1].

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1. To an extent these recommendations have been accepted in South Africa (Republic of South Africa, 1984:16-18), in which is stressed the need for low-cost housing, rural development programmes, infrastructure and so on. The scale on which this is likely to take place is uncertain.

2. Development of African (often 'sub-subsistence') agriculture. Developers often regard this as a priority for 'national states' and other African areas, simply because there is not much else there which can be developed. The restraints here are likely to include prevailing forms of land tenure, rural resistance to being organised, local power structures including tribal authorities or headmen, drought, lack of capital, labour and skills, and so on.

A large number of people are very busy in agricultural activities on a fairly permanent basis, but incomes earned and the productivity of labour are very low. Physical (especially the scarcity of land and its overall distribution) and social constraints make it impossible to develop all such activities, but it is likely that much of the employment could be improved, and the prodssible to develop all such activities, but it is likely that much of the employment could be improved, and the productivity of labour raised. Efforts might include changing land tenure systems, improving infrastructure, providing loans and credit to farmers, new technology, cropping practices and fertilisers, marketing structures, improving farming techniques of African women.

3. Developing the urban and rural informal sectors, crafts and so on. This would basically be similar to the programmes to develop the informal sector and small businesses, with some rural specificities (see section 7.4.2 below).

4. Rural Women's Programmes. The idea here is that the specific development needs of (urban and especially rural) women should be fulfilled on an independent basis from those of men. This should be designed to counter some of the gender/household-exacerbated causes of poverty discussed earlier, including sex discrimination in the labour market, a radically unequal distribution of income within many rural households, a lack of rural productive resources, markets and other handicaps, and long hours of drudgery to save household costs. Development efforts might include providing employment and income sources for women along the lines described above; reducing drudgery via time- and labour-saving innovations within the household (cooking facilities, water, energy); agricultural programmes aimed at women. In the South African situation where influx control and the migrant labout system condemn the majority of African women to a lifetime of rural poverty, these programmes could be particularly valuable to the development effort.

If possible, all the above programmes should be complemented by some form of income-support system for people unable to work on them.

Given that the above are the kinds of local projects which a regional development strategy might aim at, what regional labour-market and employment information is required to provide an overall data-base for such planning?

7.3.2 UNEMPLOYMENT AND LABOUR ULITISATION RESEARCH

7.3.2.1 Introduction

Although statistical indices are often misleading, it is almost inevitable that they end up being the central input into the planning pro-

cess. What seems necessary for regional labour planning is that a small group of select indicators related to labour utilisation be derived as accurately and meaningfully as possible. These might include measures of unemployment, underemployment, incomes from various types of work, and so on. Simple indices (like the open unemployment rate) tend to be highly misleading on their own, and should only be used in the context of other measures looking at other aspects of labour underutilisation less closely linked to a particular and limited conception of labour market functioning.

Where the labour market is drastically stratified and incomplete as in South Africa, precise indicators are needed all the more. Much discrimination is pre-market and is reasonably easy to measure, so unemployment, labour force participation and underemployment rates are needed for important groups likely to be discriminated against, for example old vs young or men vs women, by education and occupation. It is especially important to monitor this over time, to measure changes in their relative long-run vulnerability to unemployment.

Labour force surveys will inevitably play an important role in acquiring labour data since they are quick, straightforward and relatively easy to undertake. The labour force approach here - as discussed earlier - is problematic, but no cheap and widely accepted alternative system of measurement has yet been derived. The basic labour force methodology can be expanded, however, the important innovations being: i) to acquire sufficient data on individuals such that a <u>variety</u> of labour market indicators can be developed, thus reducing reliance on the simple 'unemployment' rate (however defined); ii) to tabulate household data as

well as data on persons; iii) to collect income data which can be related to employment type and labour productivity (see ILO, 1972: 155).

In fact, to a large extent an employment-directed basic needs policy means the poor should be defined in terms of households and the distribution of incomes within households. Appropriate policies can be introduced to affect 'target groups' (defined largely in terms of access to income, basic consumption goods and basic services); here, by ensuring employment to people such that income will be channeled back to the members of that 'target group'.

7.3.2.2 A proposed labour utilisation survey

It is to be expected that regional research will start off at a fairly elementary level and with limited resources. Even given these constraints, however, a fairly straightforward yet powerful survey of the utilisation of labour within each region could be designed, and such data would act as a major input into regional employment planning.

This survey should investigate both individuals and the households from which they come on an ongoing basis. It should cover the following issues:

a) Household demography (size, number of members older than 15 and younger than 60 (women) or 65 (men));

b) For people of working age:

i) sex, education levels, age, marital status;

ii) whether the person has a formal sector job, and if so, incomes

earned from it[1];

iii) if not, what work activities the person does either of a subsistence, use-value oriented nature, or for the market; for both, how much work is done and for what income; whether such work is fluctuating, seasonal or occasional;

iv) if people are openly unemployed, how long they have been jobseeking and their previous occupation;

v) whether people want work or want more work; why they aren't looking for it, or reasons why they can't accept it;

c) An estimate of total household income and its sources.

Some important indices to monitor on an ongoing basis would be as many as possible of the following:

i) Total employment in the formal sector of the economy;

ii) Average or median household incomes, either total or per capita;

iii) Average household incomes of the bottom 40% of households, or incomes of the poorest 20-percentile of households.

iv) Open unemployment and discouraged unemployment, by age, sex and other breakdowns;

v) Some indice(s) of informal activities: total numbers of workers, earnings and so on;

vi) Indices of the demand for work and constraints on accepting it;

vii) Some measure of the distribution of income;

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1. In a survey of this kind, it could be most efficient to take stable formal sector employment as a datum and concentrate on measuring and aiding those without it; it might not even be necessary to investigate occupations or industries, though this would be useful.

viii) The proportion of household heads without work or earning below a minimum income;

ix) A measure of the earnings of women in various kinds of work;

x) Number and median earnings of unskilled casual or self-employed labourers (see Webb, 1976: 6);

xi) Measures of underemployment, by sex, in terms of time worked and average incomes earned;

xii) Some indice of future employment needs based on current un- and underemployment rates and the age- and sex-structures of the population below working-age;

xiii) Labour force participation rates in monetised activities;

xiv) The percentage of economically active household heads openly unemployed.

Hopefully such a method could be reasonably quick, efficient and produce meaningful results. This could of course be checked by having test surveys, with the survey proposed as basis for a larger and more inclusive investigation. In the long run, it would be hoped that a fairly uniform survey along these lines could be applied to all National Development Areas, with the indices indicated above as paramount; this could enable national monitoring of the labour underutilisation problem and allow much closer monitoring of the effects of government development policy[1].

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1. It should be borne in mind, however, that the survey envisaged should be designed more to provide usable data within regions over time than compare the relative positions of regions. As suggested above, the latter purpose has more generalised information requirements, much of which can be provided - only approximately but probably accurately enough - by the CPS, population and sectoral economic censuses.

7.3.2.3 Survey Specificities

1. The timing of the survey. It seems essential that any such survey be run regularly (at least every three months), to monitor the effects of economic and seasonal changes and government policy.

2. It would be a priority that the questionnaire utilised not be too long, cumbersome and 'overloaded' (Chinnappa, 1975: 33). It would have to be thoroughly pilotted in different economic areas.

3. The size of the sample. This will be a function of the size of the region's population, variations in the characteristics being measured, the number of ways in which data are to be stratified in the analysis, the precision required of the data, and the degree of spatial income homogeneity. These factors may not be documented; it is likely, in fact, that the desirable sample size would only be calculable after the data has been collected and analysed (Sabot, 1977: 93-4), and a sample size may simply need to be estimated beforehand, hopefully based on a number of small pilot surveys.

It would be necessary to cover African areas, commercial farms, peri-urban and urban areas near white cities and 'independent national states'.[1] The sampling process within each region could be varied, possibly stratifying it according to urban status and district.

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1. Thorough coverage of 'independent national states' is particularly important as so much of the South African poverty problem is concentrated in them. Were they to be excluded (on legalistic grounds of their being 'sovereign independent states'), the value of such a survey for regional planning would be considerably reduced, especially in regions such as B and D.

4. To an extent it is more important that 'non-sampling' errors in the survey be minimised (for example, those of measurement inherent in the labour force approach and the CPS, discussed above) than that a sophisticated and fully representative sample be drawn from the population (Chinnappa, 1975: 35). It may be more useful to have precision and completeness in description than statistical errors measurably defined as the standard error in comparing various samples of the same population (Ward, 1983:130-132). On the other hand it is important that upward biases towards the more established and educated members of each community be avoided. Thus it is essential that the sample be random at the local-level to avoid spatial income biases. At the level of the administrative area, district or region, more selectivity could be used, though it is also important that samples be as locally representative as possible, possibly by district or group of districts.

5. It is crucial that great care be taken with categories used in questions. As noted of the CPS, market-related or First-World concepts may not be relevant where labour markets are underdeveloped or where there is much sub-subsistence work. Instead, activity-related questions (have you spent any time tending vegetable gardens this past week? how much?) should be utilised where possible. Where key-word classifications are found necessary, questions should also ask reasons for people's answers. For example, why aren't you looking for work? why can't you accept work within a week? In this way, some of the bias inherent in such questions can be revealed. Thorough definitions of all terms used are particularly important, to avoid vagueness and confusion.

6. The larger and more inclusive the survey, the longer it would take

to complete, the more expensive processing, training and payment of interviewers etc, and (to an extent) the less accurate the results are likely to be. The most effective approach would seem to be to start off with a reasonably simple survey (preferable not much longer than the CPS questionnaire, say) to get as good an idea of the overall regional and inter-regional picture as possible. For this survey, it would probably be possible in many cases for other household members to give proxy answers. It could be extended in various directions by including other questionnaires with the same sample of households to look at more detailed issues (see below).

7. A major problem arises with the structuring of the survey: who are the interviewers to be and how will the survey be conducted? It seems crucial that the survey be run from some regional Head Office, preferably with outside interviewers. If run regularly with the same households, it is probable that trust and cooperation could be built up, lowering costs quite substantially over time, and improving the quality of the results. Above all, this method has the advantage of control over and supervision of the interviewers, while the questionnaires could be thoroughly checked and analysed immediately after completion. On the other hand, it is also expensive, cumbersome and has relatively high management and co-ordination requirements.

The system of using local interviewers as per the CPS is much cheaper and more convenient, but it suffers from many flaws which have been described in the previous chapter. It is probable that some of these could be overcome through more training, better remuneration and better checking of enumerators, but the problems are not eliminated. Further-

more, it would be difficult to get a truly random local-level sample this way and to rotate the sample at regular intervals. Overall, it would seem outside interviewers would probably do a better job. If this was beyond the reach of the research budget, local interviewers could be used but their active role in the survey would have to be minimised.

8. The sample would need to be rotated at regular intervals, perhaps every two years or so, or modifying the sample on a local or regional basis every six months or year. It seems important that the 'old' sample overlap with the new in some form.

9. It is important that the survey not be based on the Population Census, or not entirely at any rate. While the census would probably be necessary to establish survey subdistricts, it seems quite unsuitable as a sampling frame at the local level. A more reliable frame appears to be aerial photographs.

10. Alternatively, in some areas it might be possible to direct the rural aspects of the survey in terms of villages. A random selection of the villages in each region or sub-region might be drawn by size (eg large, medium and small), and a simple random method used to draw a representative sample of households within each village. This could particularly be used in parts of South Africa which are relatively 'villagised'.

7.3.2.4 Publication

For efficient usage by planners, it would be essential that the research be computerised, analysed and written up within a few weeks of each

series of the survey being completed. It would be desirable for regular (preferably quarterly) reports on the data to be produced, covering basic statistics of the kind discussed above. If possible, these should be combined with other data on local and regional labour markets, including vacancies, registered job-seekers, work of training agencies, employment trends by industries for the region as a whole. Annual reports should include more analysis of data, including qualitative data (see the key informants section, below) summarising statistics and extrapolating likely trends in the future.

7.3.2.5 Extending the basic household/employment survey

Where circumstances permit, the ILO recommends a 'multi-purpose household survey' roughly along the lines described above, to cover the labour force, employment, unemployment and informal sector production; household income and expenditure (1979b: 21). Those conducted on a large scale in the Third World have tended to be very expensive, however, and the results have often not justified the resources put into them. On the other hand, these expensive multi-purpose surveys save costs of duplication and expensive ad-hoc sample surveys, and produce more accurate and relevant data for policymakers (see M Ono, referred to and quoted in McGreevy, 1980: 45).

One possible method of getting the 'best of both worlds' would be to use the main survey above as a means of acquiring regular quarterly data, and complement it by more specialised occasional studies looking at specific areas on which data is required for policy. These would probably vary in timing and content between regions.

Such studies might include:

i) A detailed examination of formal sector employment and migrancy in more detail; including remittances, migrant turnover, re-engagements and so on; also the effects of migrancy on the labour supplying area in terms of household incomes and rural production levels. This has crucial poverty implications for rural households, but the dynamics of labour migration is a severely under-researched area.

ii) An investigation of informal productive units in more detail (see section 7.4.2 below).

iii) An in-depth study of African agriculture in each region, along the lines of: inputs, outputs and productivity; seasonal and regional variations; productivity of maize, other crops and cattle compared; possibly relate all this to production processes, capital inputs, demographic and other household characteristics. Some possible directions for such underemployment research have been discussed in Chapter 4.

It would be desirable to have a national agricultural census for African areas, but this is probably exorbitantly expensive at present and would not yield much data on the dynamics of production for planning purposes. It would probably be more important to have an objective (ie based on physical measurement) stratified sampling method of estimating total output and productivity, broken down by product, area and so on. This could be complemented by detailed studies of a fair number of households at different stages in the annual cycle, including data on labour input

and use (most effective through time-use investigation), capital and stock, fertiliser and other outside inputs.

Again, however, the types of research required would depend on the development strategies proposed. Effective development of peasant agricultural holdings requires research into the production process and effective ways of increasing productivity, various extension, marketing and credit facilities, and reasonable output prices to favour rising rural living standards (Reynolds, 1984: 9). The African areas of South Africa clearly lack the physical base for such large-scale development.

iv) Detailed research on the economic position of women in terms of work and income, and also the contribution made to lowering household costs in the broad sense (including cooking, carrying water, child care). This should also investigate the constraints affecting women and work (eg child care, transport etc) and what could be done about them.

v) Research on local casual work: where, what, to what extent do people move in and out of it; unstable employment, irregular jobs, and its relation to unemployment and unstable household incomes. A number of studies have shown casual work to play an important 'safety net' role in providing very poor households with minimal survival incomes, often in the form of working for other more wealthy households or households with migrants sending regular remittances (see eg Moll, 1984: 15-26). This appears to be a fairly recent but wide-scale feature of African areas which may deserve investigation and encouragement, even where the 'jobs' provided are extremely poor.

vi) Studies attempting to relate household income and sources of income, demographic and other characteristics with the type and direction of household expenditure, commodities forming a high proportion of household expenditures, and so on. This should be of interest regarding the scope for the informal sector, possible regional restrictions on formal business to encourage informal production, and the provision of state services and private firms to ensure households have effective access to cheap consumption goods.

vii) The role, costs and benefits of education, its relation to incomes earned, probabilities of getting jobs, unemployment and the functioning of local or more distant labour markets.

viii) Work preferences and demands of the unemployed, the 'discouraged unemployed' and other groups with demands for labour not adequately expressed in the market. More detailed lines of research here have been outlined in Chapters 4 and 6.

These kinds of studies could be seen both as independent of and complementary to the main survey. The advantage is that the households in the main survey would serve as a (hopefully) relatively amenable universe about which much is already known, and this would make things easier for subsequent surveys, as well as lowering the costs of drawing up new survey methods and sampling techniques. Furthermore, if head office interviewers were used, training costs could be reduced.

For some of the in-depth surveys described above, the sampling frames could coincide with that of the main survey (a possible example is

informal sector production), and thorough supplementary questionnaires could simply be included with the main quarterly (or whatever period) survey. In many cases, the additional data gained could both be valuable in its own right, and also serve as a check on the data gained from the main survey. In the case of agricultural production, the households in the main survey would probably need to be visited a number of times by a separate technical survey team.

7.3.2.6 The 'Key Informants' Approach

This method of data-collection could provide a useful action-oriented complement to the above programme, designed in part to make a link between the regional data-collection process and the main labour utilisation survey, and local-level development interventions. Where little is known in the above areas (where data is poor or not differentiated or frequent enough (Richter, 1978: 453), the 'key informants' approach may help derive local manpower/employment patterns fairly easily.

It is suggested that "a considerable number of persons in key positions and with key responsibilities ... possess a wide knowledge of manpower and employment patterns at and around their place of residence" (Richter, 1978: 456), and that this knowledge could be tapped in a survey:

> "Its main aim should be to supplement ... traditional /employment and manpower information/ sources and to provide a prompt, up-to-date and efficient method of identifying important local labour market features and of signalling events, changes and trends likely to influence significantly manpower supply and demand relationships at local levels for quick remedial action" (ILO, 1982a: 9).

The ILO suggests such surveys can usefully be undertaken quarterly.

From each area (averaging, it is suggested, 2 500 - 5 000 people (ILO, 1982a: 35)), knowledgeable individuals could be selected and asked to spend an hour or so filling in a questionnaire with short, articulate and clear questions about the local labour and employment situation. They might include school teachers, government and agricultural officials and people from a variety of employer's organisations, worker, women's and youth organisations (Richter, 1978: 458).

The advantages of this method is that it is cheap, quick and results are easily analysed, it can give 'qualitative' data not easily available elsewhere (especially valuable if combined with other data sources), it requires a minimum of administrative support, and can be collected and analysed with some ease at the local level - regional or national analysis could be too cumbersome and time-consuming. It would be most effective if participants were persuaded to participate in the program over a period of time - in which case, of course, they would need to be convinced their data was being used for the benefit of their area (ILO, 1982a: 36).

Problems arise in choosing the people to fill in questionnaires, in interpreting answers (memory, biased interpretations of the same phenomena, how representative are the replies?) and in the reliability of the replies. Tests in India indicated that the quality of results was good regarding overall employment, education and migration in each area, approximate for female labour force participation and self-employment, and poor for crop areas, values of household assets and household incomes (ibid, 29). It was suggested that replies were "fairly reliable on problems preventing or impeding the growth of employment, such as the

lack of finance and of energy supplies, inadequate transport conditions and shortages in skilled manpower" (ibid, 30), though it was difficult for respondents to quantify them.

The ILO suggests that such surveys could be used as follows, in rural areas:

i) To assess local needs for small employment-creating investment projects - irrigation, roads, schools and skills required;

ii) To investigate the potential for expanding and upgrading local self-employment and small business (ILO, 1979c: 23-4);

iii) To isolate local bottlenecks restricting the development of employment potential which are not susceptible to statistical enquiry, for example transport, raw materials, credit, energy, skills;

iv) To identify local areas or population groups suffering extreme poverty (ILO, 1982a: 34);

v) It is possible a key informants survey could act as an 'early-warning system' of impending local disasters (for example crop failure, animal sickness, a severe drop in migrant recruitment), and help pinpoint in advance the groups likely to be affected by such disasters (see Belshaw, 1981: 18). This would facilitate advance planning to improve the situation.

And in urban areas:

i) Details of employment patterns in the local labour market (eg seasonal or casual work, multiple job-holding, patterns of labour migra-

tion), and groups especially disadvantaged in the labour market;

ii) Why employment services are used in some sectors or occupations, and not in others;

iii) Possibilities and uses for training and upgrading labour; the effectiveness of education and training programmes (ILO, 1979b: 39);

iv) The structure of local internal labour markets and how they affect workseekers, entry requirements into occupations, networks of local job information, and other aspects of job-search;

v) The supply and lack of various skilled manpower categories (Richter, 1978: 459-60).

While this approach is hardly suitable for national labour planning, it could play a useful local role in planning and assessing development projects, provided care was taken not to choose informants likely to be biased in favour of any particular group or ideology. It could fill in a crucial knowledge gap regarding small-scale rural data; and while it is not overly 'rigorous', perhaps, it could well be no less accurate than poor numerical sources.

7.4 Small Businesses and the Informal Sector

7.4.1 INTRODUCTION

> "The informal sectors ... are by definition those parts of the economy about which systematic data are missing. Reference to such sectors is therefore nothing more than delineation and acknowledgement of our ignorance, and by itself solves no problems and answers no questions" (Hansen & Radwan, 1982: 37).

As stressed in Chapter 5, very little is known about small businesses in South Africa and almost no systematic information is available about the informal sector. As a result, it is remarkable - as per the above quote - to find that the government plans development of these segments of the economy as a major prong in its regional development and employment creation initiatives (see Republic of South Africa, 1984: 9-10; McCarthy, 1982: 8; National Manpower Commission, 1984).

For development purposes, it tends to be asserted in South Africa, i) that small firms and the informal sector have high employment (true, though much of it is very poor), ii) that they have much scope for employment growth (possible but unproven), and iii) that this scope can be developed within the current socio-economic structure (problematic). Accordingly, it seems to be a priority before any such development projects are undertaken and suggestions made, that data be acquired and analysed on what the informal sector and small businesses are, and what their growth and employment potential is[1]. This applies regardless of the type of assistance proposed (whether finance, advice and training, technical services, infrastructure etc).

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1. Two rather disconcerting examples of suggested policy based on ignorance are the recent government White Paper on the Creation of Employment Opportunities (Republic of South Africa, 1984), and the National Manpower Commission report on small businesses and the informal sector (1984). It is worth stressing:

i) The limitedness of their data. It is based on very small, 'cross-sectional' studies of the informal sector in certain areas (see National Manpower Commission, 1984: 24-26) and on rudimentary and out-of-date (six to seven year old) figures gleaned from industrial censuses which usually deal with establishments rather than firms (ibid, 12-14 and following). While both of the above sectors are found to be quite large and employment-intensive, this data does not permit analysis of their growth potential, and accordingly invalidates the many statements about "the important role that the formal and informal small business sector can play in creating employment opportunities in this country" (ibid, 1) both in that report and in the White Paper. Accordingly, it is not

Furthermore, small firms are not only differentiated but have different potentials in terms of different criteria. A simple 'employment' criterion is quite inadequate, and other more detailed criteria would be required:

i) In terms of employment, which groups are to be aimed at (eg the young, people without skills, women)?

ii) How important are other economic criteria to be: for example, improving the balance of payments through local production, slowing down rural-urban migration, rural development (however assessed), improving the distribution of income, ensuring the production of more and cheaper basic needs goods? It is also possible that the criteria could conflict: for example, strategies of informal sector development could undercut rural or crafts production, thus reducing (poor) rural employment and incomes while developing prosperous small capitalist firms.

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possible to prioritise the factors seen as influencing small businesses; the above report merely supplies a long and rather vague list list (ibid, 28-46); and

ii) The restrictiveness of their ideological approach. The National Manpower Commission report adopts the conservative view that the problems of the informal sector and small businesses are 'internal' to the businesses or infrastructural (lack of entrepreneurship, management skills, street lights etc), and does not even mention the radical approaches, that these firms are constrained above all by structural factors ultimately deriving from lack of competitiveness with large firms in the market economy. As described in section 4.5.1, this fascination with producing 'entrepeneurs' and concentrating on factors 'internal' to business serves a political purpose: it "puts the blame for the failure of small enterprises on the people who run them rather than on the enviroment in which they operate" (Schmitz, 1982: 445). It also tends to lower the costs of development by its extreme selectivity: only a few 'outstanding' individuals from each community will be reached.

Research here should be conducted at two levels:

7.4.2 THE INFORMAL SECTOR

7.4.2.1 The Informal Sector and Research

Estimates of the size of the informal sector in South Africa have ranged from enormous (see Leon Louw, quoted by the National Manpower Commission (1984: 25), who feels - on the basis of a tiny sample - that there may be 60 000 - 100 000 informal sector enterprises in Ciskei alone) to quite small. No thorough large-scale study has taken place, and such an investigation is long overdue.

Informal sector research is a problem, however:

i) It is expensive, and costs rise the more broadly the sector is defined; the universe is unknown, many activities are shady or illegal, or are likely to be misreported if highly profitable, mistrust of researchers can be a problem;

ii) Most studies have shown the informal sector to be widely differentiated in terms of incomes earned, labour employed, needs and constraints, and by region or location (depending on local resources and markets available); to research this complex and differentiated picture is doubly difficult, but needs to be begun if the probable effects of government support or assistance policies are to be assessed (see the surveys of the informal sector in Southern Africa and references quoted there in Rogerson & Beavon, 1980: 182-186; Wellings & Sutcliffe, 1984:

26-27; an example of such a complex picture is described in Glass & Nattrass, 1984, especially 35-39).

iii) Most government assistance would probably be fairly area-specific, again implying local research and local policies;

iv) To compound the above problems, it seems particularly important to monitor the informal sector on a continuous basis, both so it can be related to broader changes in the outside economy, and to monitor the progress of policy efforts to 'develop' it. This would be expensive to begin and require periodic revision, but once begun, such a program could run continuously fairly cheaply.

The problem is that while they provide useful descriptive material, cross-section surveys cannot be used to assess the development potential of informal sector activities, especially growth potential and the constraints on growth. The informal sector includes a myriad of activities which have different positions in the economy and suffer from different constraints on growth. The fact of some common government harassment and lack of official status does not imply that they should be analysed together; in any event, some activities will do better in terms of some indicators. Schmitz suggests that surveys are clumsy research-wise anyway, and that constraints on informal sector production tend to result from what he calls "a constellation of interlinked factors" (1982: 442) which are not identified in questionnaires focussing on many small aspects of informal activity. He suggests smaller in-depth studies may be equally necessary for research purposes.

Finally, research needs vary according to the groups within the informal

sector which are being aimed at, and the tactics and methods which are to be used to develop them. If 'petty capitalists' (see Section 4.5.1.1) only are to be developed, conventional methods of industrial estates and credit facilities might appear suitable, and research would simply involve locating such capitalists and catering to their 'internal' needs and constraints (eg credit); in any event, they are not likely to constitute a large proportion of the informal sector. On the other hand, if all forms of self-employment outside the formal sector are to be improved, the short- and long-run constraints acting on a variety of very different groups would need to be analysed and located, different policies developed for each, and much broader-based research would be required. The discussion below assumes the latter to be the case.

7.4.2.2 Research Methods

Various methodologies have been developed for investigating the informal sector. The most thorough and expensive is the 2-stage household-informal enterprise survey, by which a representative sample of households in an area is asked to enumerate all income types, sources and sizes; using this as census frame, informal enterprises can be selected and questioned further.

The strengths of this method are: i) this survey can be done in conjunction with other household surveys, for example income-expenditure surveys, the population census (possibly including income questions as a supplement to it) or labour utilisation surveys of the kind recommended above; ii) it can be made representative of all informal sector enter-

prises; iii) the second-stage survey can home in on selected characteristics of the informal sector (eg leaving out tiny producers or small traders), or use post-enumeration stratification, by which the original sample is stratified by relevant characteristics (eg size, industry, employment, production techniques, output etc) and a much smaller representative sample drawn from each stratum, thus reducing the total sample size; iv) if necessary, the size and scope of informal sector activities can be related to household socio-economic characteristics and compared to those with formal sector jobs, without informal income, etc; v) fewer, better-trained interviewers can be used for the second stage of investigation; vi) persons interviewed may be more amenable the second time round.

The weaknesses of this method are: i) the high costs and the large number of interviews needed to obtain a representative sample of households; ii) if run continuously, the universe would need to be reformulated fairly regularly, as new enterprises come into being, old ones expire or change location and products (Bashir, 1980: xv-xvi); iii) while it may be possible in an urban area, in a rural area problems of representativeness and cumbersomeness could be near insurmountable. The data could probably be made most accurate by having as short a time-period as possible. Is has been suggested that in some respects (eg output quantities, possibly incomes), a reference period of as little as 3 days should be used (Alla & Chuta, 1982: 151), while for longer-term data (eg credit, loans, rent), a period of up to a year could be used.

The sample frame for households is likely to be difficult to ascertain. It can be argued, however, that if a population census is used as frame,

it is likely that the households excluded (more marginalised) are likely to be those that would not benefit from an official program of informal sector development anyway (using Sandbrook's terminology of section 4.5.1, they would be the petty traders and lumpenproletariat); their specific needs might have to be met in other ways (eg public works or income support systems). Alternatively, and especially in urban areas, a method of street-by-street enumeration could be used, using local informants, to acquire rudimentary data on firm size, capital used and labour hire (Allal & Chuta, 1982: 150).

An important criterion would again be to get local and regional representation, especially of rural enterprises. Sample sizes could probably be chosen in proportion to total enumerated population or number of households.

It would be important that such surveys be carried out and followed up during the year; static business situations are often less revealing than changes over a period of time. It is possible for example that the complete survey could be carried out annually, covering where possible the same enterprises, trying to record new ones, and finding what has happened to dead ones. During the year, a small sample of enterprises could be monitored at regular intervals, say every three months. In this way, expansion or otherwise of firms, changing labour hired and needed, changing profitability, assimilation into the formal sector, stagnation and outcompetition could be monitored. Above all, it is important to see whether informal firms actually <u>do</u> or <u>can</u> expand over time.

7.4.2.3 Specific Questions

Areas of informal sector investigation might include the following:

i) Which segments of the informal sector have development potential and which don't? Would sub-sectoral development plans be needed, to delineate the place of small firms in each subsector and help in their development?

ii) To what extent are firms subject to 'internal' constraints (entrepeneurship, management deficiencies etc)? How could they be overcome?

iii) To what extent are firms limited by licensing regulations, lack of infrastructure and other limitations?

iv) To what extent, and in which sectors, do informal sector enterprises face competition with large firms? Is it likely that they can expand and take over new markets? Are they involved in direct relations of exploitation with the informal sector?

v) How can their productivity be raised? Do they require capital, skills, premises, marketing assistance etc?

Finally, it is important that factors external to firms are investigated, including technology, raw material suppliers, subcontracting and so on, the functioning of product markets, and the role of government regulations and whom they benefit. Schmitz suggests this requires branch-by-branch analysis (defined as a collection of production units and their relative linkages), because technology and markets vary between branches, and in this way all data from different sources on each branch can be analysed. This kind of research can help reveal growth

potential and expansion, but requires small samples with quantitative and qualitative research (see Schmitz, 1982: 443-4).

7.4.2.4 Appropriate Products

Complementing the above could be a programme to investigate household uses of consumption goods. This could probably be done only occasionally and on a smallish sample of households - to investigate in minute detail which consumption goods they purchase where, and to estimate the demand for such goods. It would then be desirable to draw up a list of simple consumption, intermediate and capital goods which could be produced by small firms of given technical capacity, research those which could be most profitably produced, and encourage them selectively (Allal & Chuta, 1982: 73-4). This would require not only channels to small firms to suggest new products to them, but probably active restraint of large firms in certain areas, as described earlier.

7.4.3 SMALL BUSINESSES

Research and policy here would probably not be too dissimilar from the above. It is likely, however, that conventional development channels could be used more: industrial parks, credit, subcontracting, tax rebates and so on.

Data requirements here are very similar to those for large firms, except that small firms should be researched in sufficient detail for data to be representative. The most effective approach here could be through conventional industrial censuses and surveys, except: i) it would be

crucially necessary that firms be drawn in terms of regions, to provide a representative regional industrial picture; ii) more small firms should be covered, to ensure they are adequately represented in the final results (this could require visits to small firms rather than postal questionnaires); iii) separate data on small firms should be collected and published; existing methods in this respect are rather poor.

Alternatively, regional authorities could make use of CSS sample universes for such surveys (they appear to be reasonably up-to-date) and run their own postal surveys at suitable intervals, making use of interviewer visits if necessary. Such surveys would probably need to cover similar data to that in the 3-yearly manufacturing censuses, though certain sections could be omitted. Up-to-date annual surveys would probably be sufficient, as there would be less urgency for seasonal or other short-term data than for the informal sector.

7.5 Short-term Vacancy Data

As discussed in Chapter 4, for the operational efficiency of participants in the labour market, data is required on vacancies and other national or regional economic issues, preferably disaggregated by local or regional labour market or 'travel to work' areas (thus the regional level would be suitable for data collection and analysis). The data needed here is that which will usefully provide an input into the decision-making of employers, workers and the state, to fill 'formal sector' jobs in the region as quickly and efficiently as possible.

It should:

i) Provide up-to-date input to general job applicants: the occupational and industrial distribution of job vacancies, trends in vacancies and job applications, wages and wage levels, data on employment insurance, vocational training and advancement. To new school graduates and scholars the above are necessary in addition to explanations of what work involves and processes by which people are selected for jobs.

ii) Data for employers: again trends in vacancies, job applications and wages; unemployment insurance; recruitment and employment systems (ILO, 1981: 100). The idea here would be to facilitate firm manpower planning and job efficiency, and hopefully have some positive effect on their long-run planning programmes and factor proportions; also firm internal training programmes.

iii) Data on worker job-search and reasons why workers use particular channels would be required to complement the above and help guide policy. This would hopefully be covered in labour force surveys like those discussed above.

iv) Provide an input into long-run manpower planning, in terms of the regional demand for and supply of labour, and providing an input into national manpower and education policy.

At a national level, this could probably best be organised by improving the Manpower Survey and complementing it by far more detailed and regular studies of a few select (critical) occupations, perhaps 20 - 30

'key' occupations. The samples in both cases should be regionally representative. The latter could probably be run and analysed most efficiently at a regional level (in any event, critical occupations are likely to vary between regions), based on the universes of CSS or the Department of Manpower. Again, regular and carefully-selected questionnaires would probably overcome more errors than completely representative samples. It would be vital to channel this data back into the labour market as soon as possible.

The above should complement more local-level employment service-type efforts. This is an area of intervention as yet relatively untouched by the South African state: assisting people to train for and obtain employment suitable for their capacities, and help employers obtain suitable employees (Needham, 1979: 68-9).

There are various ways in which employees could be informed about jobs, both via some sort of 'job centres' at which jobs are publicised to allow job-seekers to quickly and easily select jobs; and guidance centres, to advise and help place people in jobs. At present such channels are limited: almost all studies show the major sources of work data to be by word of mouth, for example via family and friends (see for example CPS results for 1980-81 in which it is indicated that under 5% of African jobseekers sampled were actively looking for work via labour bureaux or placement systems (CSS, 1982b: 80-83)).

But again, this is where requirements of 'technical efficiency' come up against state migration and urban labour preference policy. Labour bureaux, for example, could be potentially useful means of distributing

job information (eg by requiring employees to register all vacancies there immediately, preferably by region or local labour market area, as well as vacancies filled, compelling the public sector to fill vacancies via bureaux only, and so on), and improving worker access to jobs (see Hofmeyr, 1984: 29), but appear to be used above all as mechanisms of labour control and stratification. This is understood by workers who avoid using them if possible, and by employers in many industries, who prefer to find accords with workers quite outside of labour bureaux channels.

7.6 Conclusion

Statistical programmes like those discussed above would not be cheap. For them to be worthwhile a great deal of thorough preparation, research and questionnaire-plotting by RDAC Authorities would be required, as well as continual supervision and monitoring and efficient publication of results by trained data collection staff. Costs could perhaps be reduced by running surveys only occasionally (eg. quarterly as in the case of the labour-utilisation survey) but would still be high, especially as the new data acquired would only be likely to yield a 'payoff' in terms of monitoring regional development progress and helping to allocate development resources over a long period of time - perhaps a decade or more.

Clearly, however, considerable minimum investments in such programmes are required; efforts to economise on them could simply lead to inadequate coverage and lack of representativeness, or result in poor, out-of-date aggregates which could be provided almost as well by the

CPS. Again, as discussed in section 5.9.4, such data-collection programmes would require a fundamental commitment to poverty-alleviation and regional planning by the South African government and the full co-operation of the 'independent national states' otherwise it would not be worth even beginning such programmes.

CONCLUSION REGIONAL PLANNING AND STATISTICS

The South African state is currently moving resources and initiatives into regional planning and development on a hitherto unprecedented scale. If the 'new development strategy' which appears to be emerging is to benefit the majority of the African population as is implied by the stress on basic needs and employment-creation, considerable knowledge requirements about poverty, labour and households will need to be fulfilled. It has been argued that some of these could be met by extensions and modifications of existing sources of labour data; others require completely new surveys and methods of data-collection, preferably conducted at a regional level.

Statistics, Development and the State

Statistics, however, are political; they tend to be collected in accordance with the highly limited perceived statistical needs of groups in power. The legacy of ignorance about labour and employment issues in South Africa stems from the low priorities these areas have had within the state in the past - in other words, a lack of concern about the welfare of the poor.

On the other hand, it seems the state is coming to realise that things are not as rosy as they seem statistically, largely because the poor and people who feel the brunt of influx control, unequal education, unemployment, rural degradation and other forms of inequality and immiseration are presenting a political threat which seems likely to escalate in the near future. If this is the case (as may well be, judging by the

spate of official publications about employment creation and the funds being allocated towards industrial decentralisation, regional development and the Development Bank), the state may benefit more, even in its own terms, from good rather than bad (but ideologically useful and satisfying) data[1].

Another ultimately political but often more subtle influence on statistics can be seen where assumptions about development and the economy in the minds of politicians and statisticians in Head Office are reflected in the statistics collected. These assumptions might include preconceptions about: i) labour market functioning, usually assumed to be reasonably efficient and egalitarian; ii) development 'delivery structures' where it tends to be taken for granted that officials won't rake off a portion of available development funds or use their positions of power to augment their incomes; iii) people's access to development projects, which is often assumed to be equal, whereas in fact some people - usually the very poor - may effectively be excluded, while others get the lion's shares of benefits.

Where these assumptions are invalid to a greater or lesser extent, poverty groups are invariably to be found, but the mutually reinforcing structure of official development priorities, development projects which don't benefit the majority of the community or exclude the very poor, and research which is biased to reveal the most encouraging or

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1. The irony here, of course, is that the development-oriented organs within the state would like accurate data for their purposes, but politically oriented organs would probably prefer ideologically favourable data for dissemination among the population at large and in international circles. It seems that these divergent purposes are not overly compatible.

favourable aspects of reality, might prevent their ever being revealed. In South Africa, the Current Population Survey is an example of this problem.

Development , Planning and Statistics

Much attention thus far has been focussed on the weaknesses of existing South African labour statistics. Despite all this, though, aren't they at least of some minimal planning value? This is probably the case, with some qualifications. On the one hand, the rudimentary nature of the data available (only allowing what Nattrass has called a "second or third best approach to policy implementation" (1982c: 1)) should not blind planners to the fact that certain regions are priorities by almost any basic needs-focussed definition, and resources should be channeled to them. It's all very well to bemoan the badness of the statistics, but that does not justify doing nothing when most or all available indicators show priorities quite clearly and consistently.

On the other hand, the implicit assumption here is that bad data is better than none at all and will probably not lead to major errors in policy (see McGreevy, 1980: 8). For many purposes this may be true (for example, in assigning priorities between regions based on CPS data, as described in section 5.3.8). In some instances or at a less aggregated level, however, this may not apply. Statistics should serve to prioritise development needs and monitor development progress; where they are lacking, it is all too easy for resources to get wasted on bureaucracies (unproductive job-creation) or on areas where very few people benefit, and to actually increase poverty and income inequality.

An imaginary example might serve to clarify these points. In a particular region it is proposed that widespread small rural industrial development is desirable to increase rural production and help reduce unemployment, and a three year programme to this end is implemented. At some stage, however, the long-run future of the project comes under consideration, and it is decided that some form of project evaluation is required. How would this evaluation take place and what statistics would be used in the process?

Case A (Poor Statistics)

In Case A, statistics examining the above situation are rather scanty, very much along the lines of those collected by the Current Population Survey. Indices exist on: a) the total number of jobs created directly by the projects; b) total rural industrial output; c) the number of locally-run and controlled firms in existence; d) open unemployment figures in the region (or districts in which the project is implemented); e) incomes being earned by people moving from open unemployment into jobs. These indices tend to examine the impact of the new rural industries in a very limited way, and in isolation from the broader economic enviroment.

Case B (Good Statistics)

Here, in addition to the above, indices are acquired on: f) the number of very small-scale informal sector operations in existence, and incomes earned from them; g) the extent of 'discouraged unemployment', espe-

cially among rural women; h) the income distribution within the region or districts affected by the project; i) measures of the relative and perhaps absolute incomes of the poorest 40% of the population; and j) the numbers of old people forced into work or looking for work.

In Case A, the statistics indicate that the rural industrial development is an unambiguous benefit. Jobs have been created, open unemployment rates have fallen, people formerly unemployed are now earning reasonable incomes, rural output has risen substantially and a number of dynamic rurally-based firms have been created. Conclusion: Expand the rural industries project and channel development resources in that direction.

In Case B the worst possible scenario will be considered. An analysis of the figures might show that the people chosen to run the industries and to whom loans were extended were already reasonably well-off, so their incomes rose, worsening the income distribution and reducing other productive activities in which they were engaged before the project began. The people who found jobs in such industry tended to be men with marketable skills who would probably have been able to find jobs elsewhere, so the income-earning capacity of the unskilled unemployed and women was not improved.

The rural industries tended to compete with and undermine the rural informal sector and women's craft production, thus lowering their cash incomes, and worsening the relative and absolute incomes position of the bottom 40% of households. Finally, because the local economy has been ruined, people formerly productively engaged are now idle but the demand

for relatively unskilled labour has not risen, and the numbers of discouraged unemployed and old people forced into looking for jobs have increased.

In this case, notwithstanding the benefits described above, the impact of the project is highly ambiguous. Possible Conclusion: Broader-based alternative strategies of development and poverty-alleviation should be considered.

The above example is rather trite and schematic but it illustrates the point that bad or non-existent statistics - whether used for evaluating projects or monitoring the employment position of a whole region - can actually frustrate development; furthermore, incomplete or partial statistics tend to be bad statistics. Statistics should only be used for development purposes where it is clear they monitor the complete impact of the 'development' process, particularly on the basic needs of the poorest segments of the population.

For as Hill puts it,

> "bad figures are apt to be dangerous not neutral in their impact since they reflect many prejudices which are themselves responsible for economic stagnation. Bad statistics are as much a cause of stagnation as bad sanitation" (1982: 16-17)!

In the example, preconceptions about the supposed economic inactivity of rural women and the discouraged unemployed are reflected statistically by these groups being regarded as non-economically active and in development practice by their access to incomes being undercut.

To summarise, then, without good statistics, basic needs-oriented development may well be impossible in the long run - implying that the acquisition of such statistics should be a short-run priority for development planners.

Development and Politics

Finally, however, a valid question to pose about the 'new development strategy' is whether it actually exists. Basic needs-oriented development would require the active cooperation of most of the African population being 'developed', some degree of popular participation, a committed and efficient bureaucracy capable of implementing development projects and some structural modifications in the economy, along the lines of the ILO basic needs programme discussed in Chapter 1. In South Africa this is most unlikely to take place on a comprehensive scale, though elements of it may yet materialise.

The problem is that large-scale development requires a fundamental political commitment to development by South Africa and the 'national/independent states'. Such a commitment has thus far been noticeably lacking, but it can be hoped that the new regional development initiatives represent a move in this regard. If this is not the case, it is to be suspected that the South African government is adopting a World Bank-type approach to the poverty problem (see section 1.2.1), a policy of minimal overall social change and highly selective interventions into the economy designed to pacify the poor and prevent them organising politically against the government and 'national

states'.

This kind of approach tends not to confront the fundamental structures causing and perpetuating poverty, and may only marginally benefit some of the poor in the long run. The role of statistics here might be simply to highlight the 'successes' of development and skimp over or ignore its 'failures' (those people whose economic welfare has not been improved with the new development strategy). Statistics might end up playing a subordinate and even propagandistic role to the political purposes of the development strategy. This remains to be seen.

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Abbreviations:

DSSA: Development Studies South Africa.

ILR: International Labour Review.

MLR: Monthly Labour Review.

Carnegie Conference Papers: Papers delivered at the Second Carnegie Conference on Poverty and Development in Southern Africa, held at the University of Cape Town in April 1984:

Saldru: Southern African Labour and Development Research Unit, University of Cape Town.

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