THE OCCUPATIONAL MOBILITY OF BLACK WORKERS
IN THE WITWATERSRAND BUILDING INDUSTRY FROM
1960 WITH SOME REFERENCE TO THE OCCUPATIONAL
MOBILITY OF THE COLOURED PEOPLE IN THE WESTERN
CAPE BUILDING INDUSTRY

The thesis submitted in fulfilment of the requirements for the degree of Master of Arts at the University of Cape Town

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SECTION ONE

INTRODUCTION
This study was undertaken at a time when a shortage of skilled White manpower, accentuated by the pressure of economic development during the 1960's, is regarded as one of the major obstacles in the way of continued and balanced future growth of the South African economy. It is commonly understood, too, that one important consequence of these shortages has been the movement of Black workers into skilled jobs previously held by Whites.

1.1 Purpose of the Study

The first aim of this study is to describe a process of change in the labour market structure of one specific industry and to describe the dynamics of adjustments resulting from the shortages of White artisan labour. Attention is to be given to the strains in the labour market and the resultant process of adjustment through government intervention or industrial council negotiations, as well as the ramifications for the market participants and the pattern of earnings.

It was decided to study only one industry since available data on Black occupational advancement was insufficiently detailed on a macro-basis to test any but the most superficial hypotheses.

One more specific objective following from this aim is to test the relevance of the neo-classical labour market theories as described by authors like Rothschild.

Such a focus on the micro-perspective of one industry is important to obtain a clearer and more accurate representation of the facts, causes and consequences of the shifting colour bar in South Africa. There still seems to be much scope for such studies, which theorise and try to explain present labour market developments. Hopefully, such investigations might lead to the amelioration of some of these strains.

The second major aim of this study is to assess critically the costs and benefits that have accrued to the various interested parties - the Master Builders Associations, the registered trade unions and Black workers (Coloured, Asian and African) following the lifting of certain statutory barriers to Black occupational advancement in one industry. In addition we want to assess the terms
under which Black workers have been admitted to the skilled trades.

In this regard it may be mentioned that the official policy objective of narrowing the wage gap is apparently to be achieved by the more productive utilisation of Black labour. In July 1973 the Economic Adviser to the Prime Minister stated that "the government has accepted in principle, that it is desirable to narrow the disparity between the levels of living of the various population groups". This is to be achieved by Black incomes "rising at a somewhat faster rate than those of Whites to the extent that this can be justified on the basis of their changing position in the labour pattern". (1)

1.2 Choice of the Building Industry

The decision to study the building industry in particular was taken for two reasons: Firstly, the sector is relatively important within the national economy, accounting (together with civil engineering) for almost one-tenth of all non-agricultural employment. Secondly, during the early 1970's the emphasis in the industry was falling heavily on the need for new recruits as well as the provision of improved training facilities, the introduction of new techniques and the more productive utilisation of available labour resources. These changes were seen as significant indications of major structural changes taking place in the employment pattern of this sector.

1.3 Regional Delimitation

The study was further narrowed down to two regions, i.e. those falling within the jurisdictions of the industrial councils of the Witwatersrand and Cape Peninsula. Research results are in most cases confined to these two regions. The building industry as a whole has fourteen industrial councils covering all the regions where the size of the industry justifies industrial council machinery. It would have been practically impossible to study all the regions and arrive at a relevant and practical set of explanatory tools in a study of this scope. Thus, the results cannot be regarded as generally valid, even though some of them seem to be applicable to other areas as well.
The contrast between the two areas highlights the different patterns of occupational advance experienced by Coloured, Asian and African workers. The Witwatersrand industry strictly controlled the entry of African workers to skilled trades by way of fragmentation agreements negotiated with the registered unions, while strict statutory barriers still control further advancement (e.g. their exclusion from the ranks of artisans). Coloured people are well represented in the artisan ranks, but there remain significant informal barriers, such as discriminatory hiring practices. In the concluding section these patterns of entry and advancement will be contrasted using the empirical analysis.

1.4 Period covered by the Study 1962-1975

The delineation of the time period presented some difficulty, since the occupational mobility of African workers in the industry began with their movement into certain lower-level semi-skilled jobs in the 1930's. Once again, however, the choice of too wide an area for study was impractical and would have limited in-depth analysis. Moreover, the choice of a shorter and more recent period made it possible to consult industrial council officials, employers and trade unionists about the pattern of change. The period chosen stretches from the introduction of job reservation Determinations No. 6 (in the Transvaal and Orange Free State) and 13 (in the Cape and Natal), i.e. roughly from 1962, to the more recent past (1975). The most far-reaching changes in the labour structure of the Witwatersrand industry have taken place during this period, even though important legislation prior to this period has to be taken into account as well.

1.5 Research Methodology

This study falls within the scope of applied labour economics, being largely a descriptive and empirical study of the dynamics of the adjustment process of one particular industry. As such it is distinguishable from macro-studies on labour and from more theoretical studies on, inter alia, human capital.

In doing the research special emphasis was placed in the initial stage on the literature on racial stratification in the labour market. This constituted the basis for the hypotheses under-
lying the empirical research. Close personal contact was established with officials from the relevant industrial councils, trade unions, government departments and leading employers as well as employers' organisations. Information was also collected with the help of a loosely-structured questionnaire.

It was originally intended to study the labour practices of several firms in depth, using statistical data from their records as a basis for the analysis of wage discrimination, the attitudes of White staff to Black advancement, and the experience with the illegal use of African labour in skilled positions. However, this proved too difficult due to the complexity of the questions which would have had to be asked within the context of the day-to-day running of the firm. All except the largest firms did not have staff dealing specifically with labour practices, or the present staff had not been with the firm long enough to provide detailed information of the kind sought.

1.6 Sequence of the Study

The study consists of two major parts, a theoretical and more generally descriptive part, including sections 2 - 4, and an analytical part containing sections 5 - 8, followed by a concluding section. While the first part covers the industry as a whole, the second part concentrates on the two specific areas.

Section 2 deals with models concerning the labour market adjustment process. Attention is first given to the neoclassical theory of labour market adjustment, and the role which interest groups like trade unions play in facilitating such adjustment. There is also an analysis of the various forces which influence employers to admit workers to occupational categories previously closed to them. The second part of this section deals with labour rationalisation schemes and the precondition for their success.

In Section 3 labour utilisation and labour market adjustment in South Africa is briefly reviewed. It was included to outline the institutional setting within which Black occupational mobility is occurring. Consideration is given to the role played by labour legislation in the control of vertical mobility and to
the flexibility it permits for such advancement. This is followed by a brief resume of the historical evolution of the industrial colour bar. Certain hypotheses relevant to later sections emerge from studies of Black occupational mobility since 1960.

The structure of the South African building sector is outlined in Section 4, with emphasis on its relative significance as well as the organisational structure and regional distribution of the industry. Some attention is also given to trends in output and employment during the 1960's and to the industry's most important technological characteristics.

Section 5 looks at the supply and demand relationships of the labour market in the Witwatersrand building industry. It may also be seen as a study of general labour and recruitment problems experienced in the building labour market. The information presented in this section serves as background to Section 6, which deals with the lifting of legal barriers to the advancement of Black workers.

Sections 6 and 7 constitute the main body of this study. Section 6 deals with attempts to rationalise the labour structure of the Witwatersrand industry through the reclassification of work by various institutional means. The process began as early as 1951 with the passing of the Bantu Building Workers' Act. The most important changes considered in this section are those which were brought about in the private building industry as a result of agreements between the parties to the building industrial council. The section also deals with the entry of Coloured artisans into the industry, as brought about by exemptions from and, finally, the reversal of, job reservation Determination No. 6 and its replacement by Determination No. 28. In the discussion an attempt is made to assess critically the bargaining structure during industrial council negotiations and the implications of these changes for the unions.

The trends in the earnings pattern resulting from the process of work reclassification is the subject of Section 7. It looks at the implications for Black and White earnings of the shifting colour bar, applying some of the conclusions arrived at in the previous section. The section analyses and tries to explain the respective trends in White and Black wages and fringe benefits in the Witwatersrand.
In Section 8 the focus is on the occupational mobility of Coloured building workers in the Western Cape. Their advancement has taken a completely different form to that of the African and Coloured worker in the Transvaal and Orange Free State, since in the former case, including also Indian and Coloured building workers in Natal, there have only been minor legal barriers to their entry into the skilled trades. The major barriers have been of a conventional nature, and consideration is given to the extent to which they are being overcome.

Finally, Section 9 contains a brief resume of the hypotheses developed in earlier sections and presents major conclusions drawn from the field work. Special consideration is given to the contrasting patterns of entry to the skilled trades of the Coloured people in the Western Cape and the African worker on the Witwatersrand respectively.
FOOTNOTES: SECTION 1

SECTION TWO

THEORETICAL ASPECTS
Section 2 deals with theoretical models designed to analyse (1) the dynamics of labour market adjustment in a perfectly adjusting neoclassical labour market model as opposed to markets with some form of administrative (institutional) adjustment superimposed, e.g. unions with restrictive practices, (2) the market forces affecting the bargaining position of trade unions in their resistance to change, e.g. the elasticity of demand for union labour, (3) employers' decisions to increase wages in certain job categories (as a method of keeping the occupation closed to certain groups), or to alter hiring standards and admit races previously excluded, (4) the proper criteria (in an economically optimal sense) by which to judge labour rationalisation (or job fragmentation) schemes.

Important hypotheses for the study emerge from these models concerning (1) union attitudes to changing the labour structure in industries with high employment fluctuations, (2) the different attitudes of craft as opposed to industrial unions, (3) protectionism and the demand for job security among union members as a quid pro quo for fragmentation of artisan skills, (4) the characteristics in the labour market influencing unions and employers to alter the labour structure.

2.1 Labour Market Adjustment

In economics there are many viewpoints as to which forces are the most important in the determination of the wage structure. Whilst there may be large differences in opinion amongst economists about which theory fits the facts, there is agreement that the extent of occupational mobility will be a crucial factor determining the shape of the occupational wage structure. Changes in relative wages induce mobility, thereby distributing labour among various occupations. In a perfectly competitive labour market, the occupational wage structure is determined by supply and demand. In an imperfectly competitive situation other forces must be specified which cause the occupational wage structure to deviate from the norm, i.e. there exist obstacles to mobility and institutional requirements which limit mobility and modify its form.

In this sub-section we will look briefly at two theories of labour market adjustment - those at either end of the spectrum.
when it comes to assumptions about occupational mobility. The first is commonly known as the marginal productivity theory of wages, and the second group of theories broadly known as "power" theories. At a simplified level, one could view the distinction as that between "competitive market forces" and interference with such forces by labour market pressure groups.

2.1.1 Neoclassical Theory

For several decades prior to the 1930's traditional economic doctrine had been based upon the view that the wage rates in particular occupations or in particular localities were determined by the free operation of competitive forces within each relevant labour market. The demand curve for labour would be determined in the following way: given a rational producer at the firm's level and assuming diminishing returns from hiring an additional worker, workers will be employed up to that point where the marginal product of the last worker is equal to the wage. The wage is a given parameter to the single employer under perfect competition but for an industry or occupation it may be positively sloping. At this point profits are maximised and the marginal revenue product schedule is thus the demand curve for labour at the firm's level.

This demand is integrated with the product market, because the marginal revenue product is derived from the demand curve for the final product, as well as from the firm's physical productivity schedule. For each occupation there would thus be a demand curve for labour, determined by worker productivity, the technical conditions of production and the product market. Together with a particular supply curve, this would determine the wage rate.
This neoclassical view of the occupational wage structure is summarised as follows by Rothschild:

"the general truth will be that in a perfectly competitive system there will be a tendency for all wages to become equal (allowing for net advantages and differences in efficiency). For if wages rose in one occupation, the workers in other occupations would move to the higher-paid trade until the wages there had returned to the general level. Even if such a movement could not be carried out on a large scale in view of the difficulties of re-training, the tendency towards wage equalization would still work in the long run, because new entrants would mainly turn towards the high-paid occupations, increasing the labour force there and bringing wages down, while the dearth of recruits would reduce the labour force and improve wages in the low-paid occupations". (1)

In other words, wage differentials in the labour market should always be equalising.

In their attempts to maximise profits, employers are assumed to substitute one factor of production for others in order to achieve the most efficient combination of factors. Labour and capital are to some extent substitutes, and the relative amounts that have to be used in a certain process of production can usually be varied to some extent. What is economically the most efficient combination will depend on the relative prices of labour and capital.

Thus equilibrium in the factor markets will only be reached when all units of labour and capital offered are employed and no entrepreneur can increase his profits by substituting labour for capital or vice versa at existing prices. This is the same thing as saying that the returns on each factor must be proportional to their prices. The equilibrium condition is specified below, where MP is the marginal revenue product of a factor, A and B are any two factors and $P_A$ and $P_B$ are the factor prices:

$$\frac{MP_A}{P_A} = \frac{MP_B}{P_B}$$

It should make no difference to entrepreneurs whether they invest a rand in labour or capital. The return must be the same in both cases or else it would be worth their while to take more of the factor which yields a higher return and less of the other
factor. This would increase the price (ceteris paribus) of the first factor, and decrease the price of the second one, and the process would continue until the return in both cases were the same.

The same two-factor analysis can be extended to any number of factors of production and in fact also to different kinds of labour and the situation of labour market intervention. An occupational colour bar, both legal and conventional, may for example restrict skilled jobs to occupancy by (say) Whites only. Yet, those members excluded by legal prohibitions may be willing and able to do the same work at a lower wage, e.g. non-union labour in a closed shop industry and the pressures for substitution on the employer would be the same as under any other conditions of factor substitution.

2.1.2 Barriers to Occupational Mobility

The 'power' doctrine focuses on interference or neutralisation of the market forces outlined above, so that the source of wage determination is sought elsewhere. E.g. by introducing trade unions into the picture, one leaves the determination of wages to a continuing struggle between unions and management, in which the wage level is a priori indeterminate. In particular, exponents of this view point to the power of unions in pushing up (some) wages beyond levels suggested by marginal principles without directly causing significant unemployment.

Rothschild puts it as follows:

"The fact is that there is not just one labour market but a number of labour markets which are fairly separated from each other by economic barriers, social prejudice and snobbery. Sometimes there may be a certain fluidity at the fringes, such as the occasional rise of skilled workers to high administrative positions, while in other cases, such as a colour bar, the division may be absolutely rigid; but in all these examples we are faced with, what Cairnes called, 'non-competing groups', within each of which there will be a certain tendency towards wage equalization subject to the impediments mentioned in previous sections, but between which there will be very little come and go, thus maintaining permanently the uneven distribution of wage incomes and advantages". (2)

Power theories usually imply union control over the supply of workers available for certain jobs, i.e. the exertion of some form of political power. Thus unions can influence wages
by manipulating the actual supply and demand conditions prevailing. They can do this by shifting the supply curve of union labour leftwards and/or expanding the demand for union services. Some authors regard these two strategies as the primary function of union leadership.

In the South African context one important feature of the labour market behaviour of registered trade unions is that if unions control the supply of workers into an occupation, thereby pushing up wages, to protect these gains they must also prevent employers from working through the capital-labour substitution process. Attempts by unions to push wages above the general level must ultimately set up forces leading to substitution by cheaper factors of production. Unions must also be able to prevent existing employers from undercutting the union wage rate, and prevent the entry of new employers into the industry who would do so. Some authors have therefore argued that oligopolistic markets, characterised by entry barriers imposed by the nature of the industry, are conducive to high wage settlements. (3)

One could view market forces as indicating the market constraints within which the behaviour of economic units is constrained. Granting the obvious limitations of the static theory it does indicate the direction of adjustment that will take place even in a dynamic situation. It could be argued that in the long run any large discrepancy between marginal productivity and wage- will become untenable, either as competition forces wages up and labour becomes scarce, or there is a cutback in employment when wages are consistently forced above marginal productivity.

In the context of a situation where this imbalance is brought about by restrictive union practices, such as a closed shop and union control over the hiring of other factors of production, the alteration is normally brought about by easing the controls on the entry of workers to skilled trades. Thomas has said in this respect:

"White labour has to realise that it cannot have its cake and eat it: if a wage level surpassing productivity levels is to be maintained within inflexible occupational patterns, which no longer meet the actual work requirements, then irresistible pressure will build up to dilute and fragment the job content". (4)
It is of course possible that unions may admit workers, excluded so far, by way of an administrative adjustment to an imbalance between the demand for and supply of labour in a particular trade. The adjustment may still be such that the unions effectively control entry. This can happen, for example, by setting a maximum permissible ratio of semi-skilled workers to artisans, and the impact this has on the skilled wage rate, or its growth may be negligible. Virtually no detailed theoretical or empirical work has been done on this issue, even though it is extremely important in the context of the South African situation at this stage, and for this study in particular.

2.1.3 The Wage-Employment Trade-Off

The emphasis on economic pressures setting limits to the unrestricted power of unions to raise wages, is widely acknowledged in the literature. As regards unions, the consensus in the literature appears to be that trade unions do have the ability to raise the wages of their members but that in the long run their bargaining power will be strictly limited by the economic environment in which they operate.

Thus unions must take into account the amount of employment associated with various possible wage rates. A union might have in mind several alternative feasible wage-employment objectives in formulating its wage policy. This, of course, does not apply in the limiting case of maximising simply the money wage rate irrespective of the volume of employment. Dunlop therefore stressed that a union's desire to press for increased wages would be tempered by the elasticity of demand for the services of its members, and that it would make some estimate of it if it were to attempt to maximise any wage-employment objective.

Periods of rising demand and employment offer unions the greatest freedom from economic restraints; a union situated in a surplus labour market, with a highly competitive industry in which demand has become stabilised and productivity does not increase, will not have big economic returns. What is more, unions may desire to augment the advantage of industrial progressiveness
(i.e. a rightward shift in the MRP) to themselves and attempt to capture technological gains before they are passed onto consumers. Differences in bargaining power of unions will to some extent influence the extent to which productivity gains are correlated with wage rate changes.

The point is put slightly differently by Friedman:

"In a dynamic world, economic forces are always arising that tend to change relative wage rates. Shifts in demand for final products, changes in techniques, discovery of new resources, and so on, all produce changes in the demand for and supply of labor of various grades, and hence changes in wage rates. In the absence of unions, these forces will operate more or less directly on wage rates. Given unions, the same forces will be present but they will operate indirectly on wage rates through the mediation of the union. For example, a change in demand that would have led to an increased wage rate in the absence of the union is likely to do so in the presence of the union only through the intervention of the union. Strikes may be required to produce wage rises that would have occurred in the absence of the union. This change in the process whereby the underlying forces work themselves out leads to unions being regarded as causes of changes rather than as intermediaries. In many cases, so to speak, unions are simply thermometers registering the heat rather than furnaces producing the heat. This is particularly obvious during periods of inflationary pressure. It clearly must be significant at other times as well, and a number of examples illustrating this point have already been given". (7)

2.1.4 Trade Unions and Occupational Mobility

The focus now falls upon forces in the labour market that will bring about adjustments in the restrictive practices encouraged by trade unionism. This is analysed primarily within the framework of Marshall's joint-demand analysis.

Consideration is first given to the merits of a much broader approach as proposed in a study by Levinson. (8) He attempted to explain differences in the wage gains of trade unions in six different industries in the United States, trying to show that greater wage gains could be explained by greater unionisation in the industry, higher profit rates etc. These environmental forces he divided into three groups: the first group includes economic variables, i.e. those reflecting demand and supply conditions in the product and labour markets, for example changes in unemployment
and the effect on the bargaining position of the union. 'Political' variables - the second group, - are defined as those applying pressure on union leadership to match or exceed the wage-fringe benefit improvements negotiated by other unions in order to maintain or extend the strength of the union. Thirdly, 'pure power' variables are those that affect the strength and stability of the bargaining institutions themselves (the employers' association and the unions). The factors in the last category include primarily those that affect the union's ability to undertake strikes and the employers' ability to resist strike action measured inter alia by factors such as the financial resources of employers and unions.

The inclusion of the last two categories in Levinson's study apparently contradicts the argument that non-economic forces do not help unions to capture wage gains and that unions are strictly limited by the economic environment in which they operate.

Even more striking about the study is the premise that certain non-economic forces may have just as great an impact on wage increases as, say, rapid productivity increases. Applying this reasoning to the South African situation one can postulate that the same three forces - economic, political and pure power - determine the propensity of registered unions to bargain over jobs. For example, economic forces may be interpreted as the critical shortage of Whites in certain trades and the rapid rise in labour costs per unit output, while political forces can be interpreted as the militancy of the unions and their reluctance to reclassify certain jobs. In Wilson's study of the South African gold mines, part of the blame for a rigid colour bar and a wide wage gap is put on the conservative bargaining position of the White miners. 'Pure' power variables, however, can be applied more directly, i.e. well-organised employers may coerce the unions into job fragmentation notwithstanding the 'normal' conditions in the labour market.

For the purpose of this study it was decided that, whilst the latter two forces may be important determinants of the rapidity of change in the occupational structure in South Africa, it was beyond the scope of this study to evaluate the part these factors play. It was reasoned that to draw any meaningful conclusions several industries would have to be studied. Thus while it is ack-
nowledged that in a dynamic world, 'political' and 'pure power' variables are important factors, the approach was limited to an analysis of 'economic' factors with only indirect attention to the other two forces where they seemed to be of special importance. It is contended here that trade unions must respond to these 'economic' forces, or in the context of this study, to imbalances in the labour market. Some comments on this choice are made in the concluding section.

The gist of Sections 4 and 5 is thus a close consideration of these 'economic' forces, such as: - the rate of growth of the industry in the period studied and its projected future growth, the relationship between the rate of growth of the industry and its demand for White artisan labour, and the average age of the White artisan labour force and projected requirements for such labour.

Marshall's joint-demand analysis\(^{10}\) specified the conditions in the product and labour market which would tend to make this demand curve either elastic or inelastic. These included the essentiality of union labour in the production of the final product, the inelasticity of demand for the final product, the proportion that the cost of union labour bears to total costs and the elasticity of supply of other factors of production.

Thus, the demand curve would be more inelastic the more essential it was to the production of the final product. In the short run this means that firms cannot replace union members with non-union members. In the long run, possibilities for labour saving techniques are an important element in the essentiality of union labour. A factor is likely to be far more essential in the short run than in the long run, because over a longer time span it is possible to make fuller adjustment to changes in the wage rate.

Secondly, the demand for union labour will be more inelastic the more inelastic the demand for the final product is. It is clearly an advantage to the union if its members produce a product for which there are no good substitutes. In the building industry, it is clearly an advantage to the unions that firms from other areas cannot enter the local market in a short period and compete with local firms.
Thirdly, the smaller the cost of union labour to the total costs of production the smaller will be the elasticity of demand - "the importance of being unimportant". Union wages have at times been up to two-thirds of total costs, e.g. in coal mining, and less than 1%, e.g. as in pattern-making. (11) The point here is simply that if the cost element is insignificant wage concessions hardly affect the overall cost structure.

Finally, if the supply of other factors of production is elastic then the demand for union services will also be more elastic. For example, if the employer tries to economise on union labour by using relatively more of the other factors of production, the price of the latter factors should not rise appreciably in response to their increased use. This last interaction is of particular importance for this study and will be considered further in Section 5.3.

This Marshallian analysis can be used to explain the dynamics of labour market adjustment in the Witwatersrand building industry. All four of Marshall's conditions concern the essentiality or inessentiality of union labour. The analysis implies that if demand for union services is elastic, rapid wage increases resulting from supply shortages will put pressure on employers either to cut back on union employment or, in the context of the particular industry, region and period studied, to substitute non-unionised (i.e. African) labour. This basically is the framework for the analysis used in Section 5, which deals with the stresses in the industry's labour market in the 1960's.

The de facto use of non-union workers to do skilled work on the shop floor could be added here as a fifth 'economic' force initiating change. Where work rules are widely transgressed, one would expect a weakening of union demands to maintain the status quo. Thus the existence of strong market forces weakens the credibility of the union and the changing de facto position on the shop floor results in de jure changes by means of negotiations.

In South African labour history, however, the employment of (especially) Black workers in skilled work categories has usually led to increasing demands for protectionism. As Robertson says:
"There are some grounds for believing that the addition of formal prohibitions through the authority of the state ought to be regarded as a probable indication that existing informal sanctions are showing signs of weakening - that the (minority) group have found it necessary to reinforce traditional informal sanctions with the penal power exercised by the state". (12)

Yet, as Lever (13) has noted, the particular response will depend on whether White workers are being displaced or whether they are moving into other jobs as the economy's labour structure changes. Thus the task of the researcher is to look at the overall picture - the state of the labour market, White unemployment, the preferences of Whites for other avenues of employment etc. Large-scale illegal work may therefore act as an indication that changes are required rather than that barriers need strengthening.

2.1.5 Adjustments by Employers

Reder's theoretical model of occupational wage differentials (14) focuses on the employer's decision-making process during periods of labour shortage and with respect to particular labour categories. This micro-perspective of change in the labour market starts from the vantage point of the single employer and his decision to alleviate labour shortages in tight labour markets. Variations in the scarcity of applicants for a particular job, according to Reder, can be met by either of two mechanisms: varying wages, or varying hiring standards, or some combination of both. He addresses himself to the question of which will be used.

He argues that "the skill and other characteristics of workers who apply for a given job vary with the state of the labour market, and the wage rates paid on given jobs are therefore affected by 'quality' variations in the job applicants". (15) Quality variations in labour markets arise through the upgrading or downgrading of members of the labour force relative to the jobs they have to fill. When applicants are scarce, employers lower the minimum hiring standards they usually insist on, and vice versa when job applicants are abundant. These hiring standards explicitly are age, sex, education, race and other prerequisites that must be satisfied as a precondition of hiring. Jobs where this selection is absent are those where there is no guarantee of minimum earnings for the job.
Whether the employer will increase wages in a particular category or lower the hiring standards normally insisted on for entrants to that job category will, according to Reder, depend on four factors. Firstly, where agreements among employers against "labour piracy" are operative, the employer will be more likely to expand his labour force by quality adjustments than by wage increases. There is good reason for employers to adhere to these agreements in a tight labour market. If firms try to increase wages in such a market, competing employers will match it. And since the knowledge of the wage increase is likely to reach other employers before it reaches many prospective job applicants, it is unlikely to give the aggressive firm even a temporary advantage. Unions in highly competitive industries, especially those for which wages are a large part of total costs, almost always pursue a standard wage policy within a given product market. They set uniform time rates or piece rates for all firms so as to "take labour out of competition".

Secondly, employers will be particularly concerned with maintaining hiring standards and rather adjusting wages where there is a danger of property loss from hiring incompetent workmen, as e.g. in the use of expensive machinery.

Thirdly, where the needed skill can be acquired in a short time by a new worker and the margin for skill is large, the tendency will be to recruit by changing hiring standards. The portion of a particular job that can be performed by a worker from another job, i.e. the extent of overlap, will be the area of potential flexibility for productivity bargaining. Where the reverse is true, wage increases play a more important role.

The costs and yields of training relative to the existing wage differentials between grades of labour is an important factor in determining the employer's choice between the two options. Since workers are under no obligation to remain with the employer who bore the training cost, the employer will not normally invest unless the prospective net gain from hiring untrained instead of trained workers can be quickly realised. Thus the tendency to undertake training and lower hiring standards will occur only when labour is in extremely short supply and the demand for output is very strong.
Finally, instead of raising wages the single firm can promote its own lower graded workers and have them getting slightly lower pay than its more efficient skilled workers. Promoting specific employees is cheaper than raising wages for a whole category since the increased compensation is only paid to the promoted workers, i.e. no recourse is needed to the external labour market. Therefore internal promotion has the advantage of not bidding up the wage rate.

Reder uses flexible hiring standards to mean two things (assuming a constant wage) - 1) workers excluded from a particular skill level are now used there and are paid the going rate, i.e. their productivity isn't lower and they were excluded for discriminatory reasons and 2) less skilled workers are used by lowering hiring standards (e.g. poorer quality of White artisans) or by fragmenting the job. In both cases these workers are less productive and may therefore be paid less.

This decision to lower hiring standards when applicants are scarce is an important aspect of change in the labour market, particularly within the context of this study. The concept may be employed to explain three phenomena dealt with in greater detail in later chapters, viz:

1) the entrance to the trades of apprentices without the minimum educational qualifications required for apprenticeship training, in order that employers may comply with job reservation determination etc.;

2) the decision by employers to employ Africans on skilled work irrespective of whether or not this is legally prohibited at the time;

3) the entry of the Coloured people into the skilled trades, where employers face the choice of employing either White or Coloured people as artisans.

The first two aspects are discussed in Section 5.3 which deals with the Witwatersrand building industry where the interface is between White and African workers, while the third aspect becomes relevant in Section 8 which concentrates on the Western Cape.
2.2 Productivity Bargaining

2.2.1 The Objectives of Productivity Bargaining

We now come to the second major objective of this section, i.e. to review the analytical work which has been done on collective bargaining within the context of labour market adjustment. This does not concern the complete opening of all occupations and complete freedom of mobility, but rather the process of administrative adjustments. As has already been noted, excessive reliance on either a 'market forces' concept or a 'power' concept of adjustment in the labour market obscures the position in real labour markets.

In particular, we are looking for ways in which labour costs per unit output can be stabilised through the medium of collective bargaining. We want to try and establish the direction of change needed to bring this about and try to show that it is optimum or 'desirable'. In this respect, overseas studies of the labour experience have something to offer.

Although some of these studies were not relevant for our situation, many of the same issues were found to be at work in this country. In South Africa the question is not only one of admitting Blacks to skilled jobs in order to relieve shortages and stabilise labour costs per unit output, but underlying the whole process there is a need to improve the performance of workers as such, i.e. to reduce labour costs (e.g. by reducing overtime and generally tightening the pay-productivity nexus). Some relevant hypotheses concerning the attitudes of registered unions with respect to fragmentation negotiations in South Africa, are developed further in Section 3.

The arguments mentioned above deal in particular with the obligation of union members to renounce restrictive practices in order to move along a more optimum path of adjustment in the labour market. McKersie and Hunter put it as follows:

"Where restrictions on manpower deployment and effort exist, management cannot embark on a unilateral programme to remove them because the workers and their union representatives will not allow it. It first has to be recognised that these practices fulfil a cultural
need, before progress in removing the obstacles to productivity improvement can be made. This hold which the work group has over the work system, and its natural instinct to preserve the status quo, are key elements of the situation prior to productivity bargaining.

Once customary practices are present (for whatever reason) they are naturally protected by those with vested interests. While trade unions may not always initiate demarcation arrangements, for example, they are certainly quick to use them as defensive arrangements. Generally, unions prefer the existing pattern of working arrangements and express a reluctance to try the unknown simply because the known is more comfortable and secure. As a result they exude suspicion of management and of any overture to change". (16)

What we are concerned with here is known in the literature as "productivity bargaining". The term is essentially a product of the industrial relations system of the United Kingdom in the 1960's, "productivity bargaining" forming part of that government's incomes policy during these years. In the relevant clause of the incomes policy which led to the productivity bargaining approach it was argued that, although changes in the cost of living and trends in profits and productivity could not be regarded as a sound basis for wage increases

"... there may, however, be cases in which an increase could be justified as part of an agreement under which those concerned make a direct contribution, by accepting more exacting work, or more onerous conditions, or by a renunciation of restrictive practices, to an increase of productivity and a reduction of costs". (17)

McKersie and Hunter give a concise account of the approach taken by management and unions at productivity bargaining negotiations:

"Productivity bargaining, though concerned with the same problem of relating work to payment, seeks to do so by rather different methods. Instead of operating through the payment system, it places the consideration of ways of improving productive performance directly in the context of wage bargaining. It involves the parties to the bargaining process in negotiating a package of changes in working method or organisation, agreeing on the precise contents of the package, their worth to the parties and the distribution of the cost savings between the reward to labour and other alternative destinations such as the return to capital and the reduction or stabilisation of the product price. In this sense each productivity bargain
is a once-for-all method of relating increases in pay to increases in productivity - though this does not preclude the possibility of a sequence of such bargains over time. It does, however, contrast with schemes which work through the payment system, where rewards to labour may fluctuate from week to week as output or productivity varies". (18)

Recently it has become practice to refer to fragmentation agreements between employers and registered unions in South Africa as "productivity bargaining". This may be because the approach in South Africa, or rather the ends strived for, are implicitly the same. Implicit in both approaches is an attempt to stabilise the increase in labour costs though the means differ. In South Africa, it will be shown that the approach appears to be one of fragmenting skilled work with as yet no real commitment on the part of the unions to act. With respect to the gold mining industry, Wilson argues, however, that from 1967 a major change in the White wage structure was introduced with the acknowledgement that all White wage increases were to be based upon improved productivity, presumably through fragmenting the less-skilled parts of the White miners' jobs. (19) These arguments will be dealt with in detail in Section 6.

2.2.2 Union Attitudes

Productivity bargaining in the United Kingdom has had to confront strong craft traditions within the unions. As McKersie and Hunter note:

"Where restrictions on manpower deployment and effort exist, management cannot embark on a unilateral programme to remove them because the workers and their union representatives will not allow it. It first has to be recognised that these practices fulfil a cultural need, before progress in removing the obstacles to productivity improvement can be made. This hold which the work group has over the work system, and its natural instinct to preserve the status quo, are key elements of the situation prior to productivity bargaining". (20)

McKersie and Hunter hypothesise that productivity bargaining will develop more readily in industries with a strong craft tradition. (21) Control over job boundaries, and the tradition of such work rules, are found to be strongest in the older craft unions, where skilled jobs have undergone little change in work content. One example would be the building trades, which gives us
26.

a clear indication as to the building unions' attitude to be expected concerning fragmentation agreements.

Another pertinent point made by the authors is that existing skill delimitations tend to be strongly supported where the economic outlook is uncertain, either because the long-term employment trend is downwards or because the industry is subject to severe fluctuations in output and employment. (22) In both cases, the reason behind this posture is the workers' fear that the new arrangements will erode their skill base and leave them with less recourse to both the internal and external labour market during a recessionary period. Workers fear to get out of touch with skills they once practised, thus having a lesser chance of securing a job. When less work is available, unions would be understandably reluctant to hand over certain artisan skills to, say, semi-skilled workers or allow these tasks to be mechanised. Eldridge cites the example of firms in the British shipbuilding industry:

"... the industry was subject to severe fluctuations. The insecurity which this bred was heightened by the fact that notice to quit the job could be given with less than a day's warning. It was further accentuated by the fact that employment opportunities outside the industry were normally very limited .... To exercise effective job control over a specified range of tasks was, therefore, to provide a cushion against shrinking employment opportunities in times of slump". (23)

However, in another sense, the preservation of demarcation arrangements may simply represent an emphasis on skill integrity.

2.2.3 Productivity Bargaining Agreements

It has already been noted that productivity agreements attempt to link increases in pay to increases in productivity through work rationalisation. According to McKersie and Hunter, the prospect of substantial reductions in manning while maintaining or increasing output has been one of the most attractive features of productivity bargaining from the management point of view. (24) Productivity bargaining has, with the co-operation of employees, introduced work changes, many of which have altered the fundamental content of jobs and directly attacked acknowledged situations of overmanning. McKersie and Hunter note that "the labour-saving effects of work measurement have been impressive". (25) For example,
at the Steel Company of Wales, the labour force reduction envisaged after work rationalisation was 5200 men (roughly half the labour force). Just under half of the 5200 were laid off due to major changes in working practices, the rest being laid off due to technological change.\(^{(26)}\) The elimination of manpower has frequently been fostered by a work-measurement system, which involves the specification of expected production performance and the planning of operations so as to achieve these results.

One of the essential conditions of many productivity bargaining agreements was the guarantee that workers would not be made redundant as a result of the agreement. Offers of such security, according to McKersie and Hunter, have been significant factors in promoting such agreements.\(^{(27)}\) These guarantees have in general not meant that management has been unable to reduce overmanning in certain occupations. A distinction has been made between job redundancy (the elimination of existing jobs) and worker redundancy (the laying-off of present employees). Whilst the former is the one generally accepted by the unions as part of any programme of change (since men can be retrained and used higher up), the latter state of affairs has been unacceptable to the unions.

In the South African context, we may hypothesise that craft union attitudes to job fragmentation arrangements will rest first and foremost on a demand for full employment, that is, change must take place in the context of a full employment economy.

Overtime reduction has also been a primary objective of many productivity bargaining agreements, particularly in industries with high overtime levels. Large amounts of overtime tend to be used where labour is in short supply and additional workers are difficult to secure. In such cases recourse to the external labour market may be more costly than permitting the existing labour force to work overtime, since in the former case the employer may drive up the wage rate against an inelastic demand curve for labour (cf. the elasticity of the curve as dependent on Marshall’s four conditions). McKersie and Hunter postulate that industries with high overtime levels will be more likely to have extensive experiences of productivity bargaining.\(^{(28)}\)

Yet, in many cases worker expectations, rather than
managements' need for more hours of work, explain the use of overtime. (29) Certain minimum levels of overtime are often demanded by workers in tight labour markets as a means of increasing their effective rate of pay (the rate of pay per hour of overtime usually being 50 percent higher than that for ordinary hours). Employers operating in such markets may therefore offer longer hours of work to prospective employees as a means of attracting workers. Labour turnover will tend to rise as workers move to those firms offering the highest overtime. In these cases productivity bargaining focuses on a reduction in both the amount of overtime permitted as well as the effective rate of overtime pay.

Other cost-reducing measures became evident during the course of the research, as characteristic of bargains both overseas and, lately, in South Africa. Many bargains, for instance, allow for payment-by-results (or piecework) schemes to operate alongside conventional time rates, particularly in industries where labour costs form a high proportion of total costs but also where labour is in short supply and productivity does not follow wage rates upwards.

Legislation allowing piecework has often superceded its widespread, though illegal, use in an industry. Legislation comes in response to strong union pressure to equalise the access of all union members to payment-by-results schemes. In fact this is actually the reason for the traditional opposition of unions to these schemes, where members within one occupation may earn vastly different salaries. Equality of opportunity for work and earnings is a principle strongly adhered to by the unions, and is reflected in the work rules of different industries. These practices can only be explained in terms of strong social pressures against any individuals gaining an advantage vis-a-vis his colleagues. An example of this practice comes from the work rules in the British newspaper industry:

"no pieceworker shall start work at the beginning of the shift until sufficient copy is available to enable every operative present to be issued with the equivalent of 12 lines of copy". (30)

The question of piecework came up during the fieldwork for this study. It will be argued later that it has an important bearing on
Finally, we can briefly restate the central ideas emanating from the productivity experience in the United Kingdom. Firstly, whilst the particular context of these events may not correspond with similar situations in South Africa, the ideas and methodology contained are extremely useful as analytical tools. The central theme of these negotiations has been the attempt to reduce labour costs per unit of output and thus to increase production efficiency. This may be done in many ways - reduced manning levels, reduced overtime, union commitment (however short-lived it may have been) to make abnormal wage increases conditional upon job enrichment, etc. It thus involves a union commitment not only to reduce labour costs by admitting semiskilled workers to closed trades, but also to assess their own earnings structure and working practices. The other central point is the question as to which parties bear the costs of such adjustment and which benefit. This question has universal application and the answer will depend partly on the bargaining strength of the particular parties. We will return to these issues in Section 6.

2.3 Conclusions

One of the most important conclusions reached in Section 2.1 is that trade unions, notwithstanding the fact that they can curtail the supply of workers available for skilled jobs, do respond to labour shortages by easing rigidities in the labour market adjustment process. This view is supported by the theories of Reder, Marshall and Dunlop. Dunlop concluded that unions cannot press for increased wages without taking cognizance of the consequences for the employment of union members. Marshall's analysis was extended to show the conditions under which union members may be replaced by non-union workers in the labour market. Reder, on the other hand, postulated certain important characteristics in the labour market which would influence the employer's decision to adjust hiring standards in certain jobs and admit workers previously excluded by the conditions specified by these standards. These two models are the basis for analysis in Section 5.3 which deals with the stresses in the Witwatersrand building industry labour market from 1960 onwards.
Important conclusions emerge from Section 2.2. The first is that older craft unions resist labour rationalisation schemes which involve the dilution of certain skilled tasks. Secondly, unions in industries with high employment fluctuations are likely to resist dilution of artisan work for fear of unemployment. Thirdly, "no-redundancy safeguards" and job security measures are important quid pro quo's demanded in return for union concessions on over-manning, overtime and the like. Finally, the most important conclusion to be drawn from productivity bargaining agreements is the definite commitment on the part of the unions to renounce restrictive practices as a method of reducing labour costs per unit output. These aspects become relevant in Section 5.3.4 where union attitudes to stresses in the labour market are discussed and in Section 6.4, where the bargaining stances of the various parties on the industrial council are analysed.
FOOTNOTES : SECTION 2

(4) W.H. Thomas (ed.), *Labour Perspectives on South Africa*, p.93.
(6) Dunlop's view is discussed by H. Levinson, *Determining Forces in Collective Wage Bargaining*, p.3. Also see J. Dunlop, *Wage Determination under Trade Unions*.
(7) D. McCord Wright (ed.), *The Impact of the Union*, p.222.


(19) F. Wilson, op.cit., p.55.


(21) Ibid, p.41.

(22) Ibid., pp.128-129.


(25) Ibid., p.236.

(26) Ibid., p.235.

(27) Ibid., p.37.

(28) Ibid., p.41.

(29) Ibid., p.136.

SECTION THREE

LABOUR UTILISATION AND LABOUR MARKET ADJUSTMENT IN SOUTH AFRICA
Section 2 discussed some of the important imperfections found in 'real' labour markets, more particularly the imperfections arising through barriers to occupational mobility and the restrictive practices of trade unions. In this Section we wish to look at these forces as they have operated historically in the South African labour market and how they operate today. In Section 3.1 the labour legislation which has contributed to the maintenance and perpetuation of the colour bar in the industrial sector is outlined. The emphasis falls on the initial impact of these Acts, however, rather than their evolution to the present. The three Acts of great importance in this regard are the Apprenticeship Act (No. 26 of 1922), the Industrial Conciliation Act (No. 11 of 1924) and the Wage Act (No. 27 of 1925). Consideration is given to the difference between statutory and conventional barriers to Black job advancement, and the use of the closed shop principle and the rate for the job as protective devices.

The purpose of Section 3 is also to investigate the changes that the industrial colour bar is presently undergoing in South Africa. The pattern of change found is one of adjustment according to the economic climate at the time, i.e. the threshold between White and Black occupational categories changes accordingly. The period from 1924 to 1960 is dealt with in Section 3.2.1, while Section 3.2.2 analyses the period from 1960 onwards. Some hypotheses relevant to this study emerge from the South African literature on Black occupational mobility and the process of job fragmentation, as reviewed in this Section.

3.1 Labour Legislation

3.1.1 The Industrial Colour Bar

The origins of the industrial colour bar are summarised by van der Horst as follows:

"The pattern of employment whereby Europeans are employed on skilled work and Africans on unskilled manual work, Europeans being paid five or more times as much as Africans, grew up more than 60 years ago in the early days of diamond and gold mining, when miners and artisans had to be attracted from overseas and compensated for the high prices and primitive conditions of the remote and barren mining camps. Unskilled African labour could be
obtained nearer at hand. But it was genuinely unskilled and, moreover, unaccustomed and unwilling to work away from home for periods longer than a few months. Considerable expense was also incurred in recruiting it, so that although relatively low money wages were paid, labour costs were relatively high because labour turnover was rapid and efficiency low.

Initially the structure of employment on the mines corresponded to the supplies of labour available, but this structure was already becoming obsolete 50 years ago at the time of Union. Before 1910, the White miners and artisans had sought and obtained statutory protection against potential competition from the Chinese indentured labourers employed on the mines after the South African War. Immediately after Union they obtained protection from African competition, through regulations, subsequently declared ultra vires, which were issued under the Mines and Works Act of 1911 and excluded persons of colour from a wide range of occupations on the mines of the Transvaal and the Orange Free State. With this entrenched position on the mines behind them, craft unions successfully maintained all artisan's work as the preserve of the Whites, not only on the Rand but in most parts of the Union. Other industries were geared to the structure of employment and wages on the mines". (1)

Maree, (2) in discussing the rationale of the colour bar, showed that the existence of the industrial colour bar (and a wide wage gap) can be seen in terms of supply and demand for different types of labour. Yet, to see it only in terms of market forces would be incomplete and misleading since it is necessary to understand the underlying forces that determine the supply and demand for labour. These forces are economic, structural and political. The economic rationale is that employers act as profit maximizers and seek to reduce costs wherever they can. They will therefore employ workers they can pay least in any particular category of labour, provided the workers are capable of doing the work efficiently. This is the reason for the "breakdown" of the colour bar, since Blacks are almost always paid less than Whites for performing the same work. Thus the existence of a colour bar can be seen as a method of protecting White workers from being replaced.

There is also a structural reason for the dynamic change of the industrial colour bar. As the South African economy grows rapidly shortages of skilled labour among the Whites develop and employers are forced to employ people of other race groups in those
occupations. The supply of skilled White workers is simply inadequate to meet the demands of the economy and therefore Blacks have to be employed in these occupations. This does not contradict the economic rationale of the colour bar given above.

Political forces have played a major part in determining the structure of the industrial colour bar in South Africa. This is because South African society is not based on the democratic principle of consensus, which entails that all racial groups should have access to political power and be able to influence the decisions of the legislature in matters affecting their well-being. Nor is the principle that the majority decision should be accepted by the minority established in the country. From the earliest contact in industry up to the present time the patterns of employment have been determined by Whites and been based on White self-interest and on maintaining White rule and domination in South Africa. Without understanding and accepting this principle it is not possible to see the full implications of the industrial colour bar.

The maintenance of the industrial colour bar can be associated with the policy of White full employment at 'civilised' rates of pay, educational discrimination, and the maintenance of 'industrial peace'. As van der Horst\(^3\) has indicated, it is also associated with three of the most outstanding characteristics of the economy: the occupational stratification on racial lines, the structure of wage rates with the large gap between skilled and unskilled labour and the prevalence of the use of migrant labour.

We must now turn to the effects of various forms of industrial labour legislation on the maintenance of the industrial colour bar.

3.1.2 The Apprenticeship Act

At the turn of the century, most skilled miners and artisans had been immigrants, because there were relatively few local artisans. Local European workers were not acquiring skills because these were traditionally (i.e. in the absence of formal apprenticeship) acquired by working alongside an artisan as his assistant, an arrangement White youths found undignifying, since these assistants were usually Black.
The Apprenticeship Act No. 26 of 1922 was designed to overcome this difficulty by providing a system of formal apprenticeship in designated trades. The Act was amended in 1944 and empowered the Minister to appoint, for any trade and in any area, an Apprenticeship Committee composed of an equal number of representatives from the employer's side and trade unions. The Minister of Labour has power, upon the recommendation of a National Apprenticeship Board after consultation with the local committee, to designate trades within a specified industry to be subject to apprenticeship and to lay down conditions, including inter alia the minimum and maximum ages of apprentices, the minimum educational qualification for entry to apprenticeship, rates of pay and classes to be attended, the maximum number of apprentices to be employed in the industry or by any employers.

A national registrar of apprentices is responsible for the entire operation of the system; and he may refuse to register a contract of apprenticeship if the local committee in a particular trade advises him that it would not be in the interests of the apprentice, taking into account the possibility that he will be unable to find a position on qualification. Since all applications have to be passed by the appropriate apprenticeship subcommittee, Coloured and Asian apprentices may be excluded for any reason that the committee wishes to give. In practice, the reason given is often that all vacancies have been filled or a White trade union may simply forbid its members to train Coloured or Asian apprentices, thus forcing the employer to concede that he does not have the staff to train apprentices. In the motor industry this type of ban was made public by the White Motor Industry Employees' Union in 1968, (4) and four immigrant motor mechanics who attempted to defy it were expelled from the union in 1972. (5)

However, since 1972 the position in the motor industry in particular has become more flexible. A government financed training school was started in July, 1974 in Bellville with an annual intake of 40 apprentices. (5a) After a three year course they take the ordinary trade test and become qualified artisans.

Where a closed shop agreement between employees and unions is operative, or where trade union influence - even without
a formal statutory closed shop clause in an industrial council agreement - prevents the employment of Blacks as artisans; employers are generally not prepared to bring about a confrontation with White labour by apprenticing Coloured, Asian or African youths. In industries where a closed shop imposes an obligation to use trade union members only in skilled positions, Africans are denied access to apprenticeships because it is illegal for them to belong to registered trade unions (see below). It is in any case administrative policy not to allow any African to be indentured in terms of apprenticeship legislation.

If individual employers were prepared to go against normal practice and experiment with training Coloured or Asian apprentices, the local apprenticeship committee could prevent them by recommending to the registrar of apprentices that registration of the apprentice be refused. Schlemmer notes that the Minister of Labour after representations from the Coloured Motor Industries Combined Workers' Union, refused to act in the case of an apprenticeship sub-committee in Cape Town which openly stated its policy of prohibiting the training of Coloured artisans. (6)

It is well known that an implicit colour bar operates through the educational requirements demanded of prospective apprentices. The Theron Commission report has recently noted that the number of Coloured youths with the required educational qualifications is still small. (7) The minimum educational qualification, which is usually Standard 6 or Standard 7, has also been criticised as being unnecessarily high. (8) The other main barriers to Coloureds and Asians entering apprenticeships has been the mutual, unwritten agreement between employers and White unions that only White youths are to be trained. (9)

In 1974, out of a total of 11218 new apprenticeship contracts registered, 83,2 percent were in respect of Whites, 12,1 percent in respect of Coloured people and 4,5 percent in respect of Asians. (10) The ratio of Coloured and Asian to White apprentices in different industries varies widely, as the following figures (for 1974) show: building (1:0,6), furniture (1:0,1), hairdressing (no Coloured or Asian apprentices), metal and engineering (1:8,6), mining (1:391), motor (1:9,3), central govt. (1:2,5) and printing (1:8,2). (11)
The position with regard to Coloured and Asian apprentices is changing rapidly in certain industries, and in recent years the number of Coloured and Asian apprentices has increased greatly. (11a) In the important metal and engineering and motor trades in the Western Cape, there have been particularly important changes. The rapid change in the building industry in the Western Cape and Natal will be discussed in Section 8.

3.1.3 The Industrial Conciliation Act

The Industrial Conciliation Act (No. 11 of 1924) provides machinery for the registration of employers' organisations and trade unions and the establishment of industrial councils. Trade unions are defined significantly as "any number of employees in a particular industry associated together primarily for the purpose of regulating relations between themselves and their employers".

Industrial councils operate in a number of industries. Agreements made by industrial councils which are approved by the Minister of Labour give legal sanction to minimum wages for different grades and categories of work. The Act provides that wages and conditions of employment may be laid down via the industrial council system in any industry except agriculture, domestic service in private households and government employment. Industrial council agreements also regulate the classification of work and other conditions of employment for employees in many industries. Once these agreements are given the force of law - which generally occurs if both parties are sufficiently representative of those on whose behalf they bargain - they may be made binding on all employers whether or not they belong to the employers' organisation.

The definition of 'employee' in the Act excluded those Africans who were subject to certain laws (like the Masters and Servants laws in Natal and the Transvaal). In fact, in practice the majority of Africans in the Transvaal, Orange Free State and Natal were not defined as employees for the purposes of the Act and were thus excluded from all the provisions of industrial council agreements. Alternately, industrial councils had no powers to set wages and conditions of employment for Africans. Trade unions registered under the Act are known as 'registered' trade unions, while African trade unions cannot be registered.
Employers were quick to see that, since African wages and other conditions of employment were not laid down by any central body and were thus only determined by private agreement between employer and employee, they could lower labour costs per unit of output directly by increasing their African labour complement, particularly where a White job could be fragmented. The Department of Labour, in a memorandum (dated 6/7/1931) to the Native Economic Commission wrote that:

"The exclusion of pass-carrying Natives .... meant that there was no wage regulation for a large number of unskilled and semiskilled workers and some employers soon began to take advantage of this defect in the law by employing persons of the class whose wages were unregulated whenever possible. In some industries, e.g. engineering, which permits of various processes being simplified very considerably by a high degree of specialisation and division of labour, it is possible to conduct the work almost entirely with unskilled and semiskilled workers and in this way the incidence of agreements under the Act was evaded by the employment of uncivilised labour (sic) at low wages". (12)

As a result of this practice the Act was amended in 1930 to allow industrial councils to set minimum wages and maximum hours of work for persons who fell outside the scope of normal agreements (i.e. Africans), whenever it appeared that the object of the agreement might otherwise be defeated. In 1937 the Act was again re-drafted to permit industrial councils to extend any of the provisions of industrial council agreements to persons excluded from the statutory definition of employee. This meant that although African workers took no part in negotiations at industrial councils, their wages and all other conditions of employment were determined by agreements between registered unions and employers. The Act, however, made provision for a White Bantu Labour Officer to be present at all industrial council meetings where the conditions of employment of Africans were to be discussed. More recent adaptations to the system include official African observers at industrial council meetings as well as (unofficial) liaison between management and representatives of African trade unions at such meetings.

The Act also permitted trade unions to maintain a closed shop thus preventing Africans from being employed on types of work for which membership of registered unions is required. In practice
registered unions could win a closed shop concession for a wide range of jobs for which they wished to exclude Africans. This practice is often referred to as 'self-imposed job reservation' since this arrangement also becomes binding once the industrial council agreement is published. The Industrial Legislation Commission (1951) noted that out of 88 industrial council agreements extant at the time, 51 contained closed shop provisions. (13)

The closed shop still operates in important industries such as steel and engineering, which employs a quarter of those in manufacturing, although recently pressure of demand has been such that the ceiling has been raised step by step. (13a) The closed shop also operated in the industry in the Orange Free State and Transvaal to exclude Coloureds and Asians from the artisan trade unions. (13b).

In 1953 the Native Labour (Settlement of Disputes) Act (No. 48 of 1953) was passed in order to provide alternative methods by which African workers could negotiate with employers. The Act did not recognise African trade unions and it made strikes by African workers illegal. It also did not apply to workers in domestic service, on farms, in governmental service and on gold and coal mines.

The Act provided for the establishment of Regional Labour Committees whose members are Africans appointed by the Minister of Labour, and an all-White Central Native Labour Board appointed by the Minister of Labour. The chairman of the Regional Labour Committees, the Native Labour Officer, is White. Employers in firms employing 20 or more African workers are required to permit them to elect a works committee or, more recently, a liaison committee, if the workers so desire. One member of such a committee is then responsible for maintaining contact with the Regional Labour Committee. This committee acts as mediator between employers and works committees, should any dispute arise. If the dispute cannot be settled it is referred to the Central Native Labour Board, which, if not successful in settling it, refers it to the Minister of Labour. He may then direct the dispute to the Wage Board if this is the recommendation of the Central Native Labour Board.

On this method of settling disputes, van der Horst wrote in the 1960's:
"Little use has yet been made of this machinery. Few works committees have been established under this legislation, and at the time of this study little use has been made of the procedure for settling disputes. In practice, it is relatively seldom that dissatisfaction among African workers with wages and working conditions or their treatment by employers, supervisors or foremen, takes the form of an open collective dispute. Indeed, the balance is heavily weighted against Africans' being parties to open disputes, for striking, the final weapon in the hands of dissatisfied workers, has long been illegal for the great majority of Africans, and the Native Labour (Settlement of Disputes) Act extended this legal prohibition of strikes to all Africans". (14)

In 1973, only 28 works committees were functioning in terms of the Act. (14a) However, the widespread series of strikes in 1973 by African workers has drawn attention to the lack of effective machinery for the resolution of grievances. The Bantu Labour (Settlement of Disputes) Amendment Act, introduced in 1973, made certain welcome improvements to the system. Certain other adjustments are under consideration.

When the Industrial Conciliation Act was redrafted in 1956 a new section, number 77, made provision for the creation of an industrial tribunal of five members. One of the main functions of the tribunal was, on the instruction of the Minister of Labour, to investigate the desirability of reserving defined types of work for specific racial groups, representations from interested parties usually being called for. Introducing the redrafted Act in 1956, the Minister stated that the purpose of these new provisions was to "safeguard the standards of living of the White workers of South Africa". (15) If the report and recommendations of the tribunal are approved by the Minister, they become a job reservation determination.

After decreeing that certain jobs are reserved for members of a particular race, the Minister of Labour may grant exemptions. Up to June 1975 almost 30 determinations had been made, whilst one had been replaced and two had been suspended. (16) Many exemptions, both blanket and to individual employers, have been granted from these determinations. Determinations may either prohibit the replacement of workers of one race by those of another race, compel employers in an industry to maintain a fixed percentage of workers of a particular race in an occupation or reserve any class of work or specific jobs
or work generally for members of a particular race.

Of particular importance for this study are determinations number 13 and 6. Determination No. 13 (of 9/11/1962) reserved certain building trades in the Western Cape for Whites. Its scope was not wide since reservations were only made in skilled trades still dominated by Whites. Under the same determination, similar trades were reserved for Whites in parts of the Eastern Cape and Natal.

Job reservation Determination No. 6 (published under Govt. Notice No. 17 of 2/6/1961) reserved all work in the building industry in the urban areas of the Transvaal and Orange Free State for Whites. "Work" was defined in the determination as all tasks in the industry excluding 90 unskilled and semiskilled jobs which were thus the only jobs open to Coloured, Asian and African workers. The main impact of the determination was on Coloured artisans working in the two provinces, since African workers were previously barred from doing skilled work in the industry in terms of the Bantu Building Workers' Act (No. 27 of 1951). The Act was the second statutory colour bar in industry after the Mines and Works Act. It provided for the training and registration of Africans as building artisans to enable them to construct housing and other buildings in African dormitory townships.

Under pressure from the registered unions in the industry at the time, section 14 was written into the Act. It stated that no employer could without written permission of the Minister of Labour, employ an African upon skilled work in an urban area other than in an African dormitory township. This effectively excluded Africans from doing any skilled work in the private building industry and was included so as to remove the threat of competition to White building artisans posed by the Bantu Building Workers' Act.

3.1.4 The Wage Act

The industrial colour bar is not just an occupational colour bar. It is also a wage colour bar. The insistence of many White unionists on 'the rate for the job' is another way of maintaining the colour bar, because White employers will give preference to White employees when recruiting for these jobs and also because it
prevents Black workers from undercutting Whites in these jobs. The rate for the job has thus been widely advocated and used as a defensive policy for White workers.

A wage colour bar was promoted by the Wage Act (No. 27 of 1925). Operating through a Wage Board, it provides a means of establishing minimum wages and conditions of employment for different classes of work in industries where no collective bargaining machinery (i.e. industrial councils) can be established. The Wage Board makes investigations, reports and recommendations to the Minister of Labour, which subsequently become wage determinations if approved by him. Agriculture and domestic service have specifically been excluded from the ambit of the Act.

The Wage Act, like the Industrial Conciliation Act and the Apprenticeship Act, contains a provision that the Wage Board shall not discriminate or differentiate on the grounds of race. However, as we have already seen in the previous two instances, this has been the practical effect of the operation of the Act. When the Act was redrafted in 1937, the Wage Board was directed to include with every recommendation a report "upon the class or classes of employees to whom .... it would be equitable .... that remuneration should be paid at such rates as will enable them to support themselves in accordance with civilised standards of life". (17) The operation of the Act thereafter set in motion, firstly, a selective process which had the potential for displacing Black with White workers, and secondly, machinery which bolstered high White earnings. The process is succinctly described by the Industrial Legislation Commission:

"In an unregulated market, the available supplies or numbers determine the wage, but, under regulated conditions, wages determine the numbers and set in motion a selective process in which all who are not worth the determined wage must make room for those who justify the payment of that wage". (18)

Thus, a wage determination may set such high wages for work traditionally done by Whites that employers would effectively maintain a colour bar, or, in fact, may be induced to replace Black with White workers. This was known to occur in earlier periods. (19)
3.1.5 The Factories, Machinery and Building Work Act

The Factories, Machinery and Building Work Act (No. 22 of 1941) applies to all manufacturing industry and controls the use of machinery, safety, health and minimum working conditions in factories, including controlled overtime, meal breaks, etc. These benefits apply to all employees unless more favourable conditions are applicable under collective agreements or other labour laws.

The Act generally applies without racial discrimination, except that separate toilets, dining rooms and as far as possible, workplaces have to be provided for the different racial groups. Although this may appear a small technical matter it may make it inconvenient and costly to introduce members of a different racial group. It may also make it difficult to promote a member of a different racial group, where different toilets, for example, are provided for different grades of staff. The Department of Labour may intervene in cases to prevent promotion on these grounds. The Shops and Offices Act of 1964 covers matters of a similar nature to those mentioned above, and along similar lines, in respect of shops and offices.

3.1.6 The Civilised Labour Policy

A third colour bar in employment is practiced through a Civilised Labour policy observed by the state in recruiting its own employees. The policy was one of employing Whites on unskilled and semi-skilled work in government departments, at wages above those current for this type of work.

The application of this policy has ebbed and flowed according to the state of the economy. It was first applied by the Pact government in 1924 when poor and unemployed White farmers migrated to the cities. They were not trained to do skilled industrial work but were not prepared to work in the ranks of the unskilled at unskilled rates of pay, and direct action led to the substitution at higher wage rates of Black by White workers in unskilled jobs in many government departments.

The effect of the Civilised Labour policy was to shift the colour bar lower down the occupational ladder, particularly in government undertakings. For instance, between 1924 and 1933 the proportion of White labourers employed by the Railways and Harbour
administration rose from 9.5 percent to 39.3 percent, whilst that of Africans fell from 75 percent to 48.9 percent. (20) Other government departments did the same - in 1937 they employed some 10000 Europeans on work previously done by Africans, whilst employment was apparently found on subsidised works for approximately the same number. (21)

Attempts were also made to induce private industry to do the same, for example by withholding tariff assistance from industries and firms which did not employ a high enough proportion of "civilised" labour or by excluding them from approved lists of government tenders. The Customs Act (No. 36 of 1925) contained a clause authorising the levying of the minimum duty on any article if the protected industry concerned was reported to be maintaining 'unsatisfactory labour conditions'.(22) 'Civilised' was always interpreted as 'White'.

As part of the Civilised Labour policy, the Pact government also helped to entrench the legal and wage colour bar by passing the Wage, Industrial Conciliation and Apprenticeship Acts which, as we have seen, were intended to protect White workers. The statutory colour bar was entrenched by amending the Mines and Works Act in 1926, reserving numerous mining jobs for Whites.

3.2 Adaptations of the Industrial Colour Bar

3.2.1 The Period 1924-1960

Maree (23) has divided the adaptations of the industrial colour bar into the following periods: -

- Civilised Labour Policy: 1924 - 1939
- World War Two: 1939 - 1945
- Nationalist Party Entrenchment: 1945 - 1960

During World War Two the direction of adjustment brought about by the Civilised Labour Policy position was partially reversed. This was because:

"In the labour market the most pressing problem was soon to become the shortage of skilled labour; the armed
forces made considerable inroads into the country's manpower, while the colour bar made it difficult to utilise fully the reserve of non-White labour. Nevertheless, some 'dilution' did take place, particularly by using Coloured and Indian males as skilled workers". (24)

Thus the effect of the war on labour was to reduce the supply of skilled manpower because many skilled workers joined the defence force. Thus Black workers were promoted into skilled and semiskilled jobs previously held by Whites. Between 1938/39 and 1944/45 the proportion of Whites in secondary industry decreased from 38,1 percent to 30,9 percent whilst the proportion of Africans increased from 46,2 percent to 52,0 percent. (25) Total employment in secondary industry increased during these years from 307,100 to 431,400. (26)

It was during this period that the colour bar began losing its effect as an obstacle to Black advancement because of the changes that took place in manufacturing methods. The colour bar had considerable significance in the early years of South Africa's economic development when access to craftsmanship offered about the only opportunity to achieve higher status and better wages. The process of industrialisation during this period extensively reduced the ratio of skilled to semiskilled jobs and the impediment of the colour bar was no longer as harmful to Blacks as it had previously been. Mass production methods and new processes eliminated much of the work previously done by skilled artisans. Used initially as a ledge for poor Whites in industry, semiskilled jobs were increasingly handed over to Black operatives. While White workers concentrated upon maintaining the skilled occupations as their closed preserve, they shunned the opportunities arising from the new technique of manufacturing, leaving the field clear for Blacks.

The significance of the growth of manufacturing industry to the utilisation of labour was the disappearance of the customary clear division between skilled and unskilled work. This process was particularly rapid in newer industries like textiles and metal engineering where no customary pattern of employment existed.

The period between the end of the war and 1960 was one during which the Nationalist Party had come to power and was seeking to entrench the position of the White population both in the political and economic sphere. In this period the colour bar does not appear to
have undergone great changes. The government was attempting to maintain it as a rigid and static structure in the South African economy. That employers must have been adapting the colour bar already to suit their needs can be inferred from the following information: by May 1956 the industry was 7.4 percent short of White artisan requirements, whilst the shortage of White apprentices was 11.5 percent and that of White clerical workers 5.5 percent (male) and 4.1 percent (female). (27)

3.2.2 Adaptations after 1960

The upward movement of the industrial colour bar accelerated considerably from 1960 onwards. By any standard, the growth of the South African economy during the 1960's was extremely rapid. Between 1960 and 1970 real GNP increased from R5,551 million to R9,797 million (at constant 1963 prices). (28) The average annual rate of growth between 1962 and 1966 was nearly 7.0 percent surpassed (internationally) only by Japan's 9 percent over the same period. (29)

The colour bar, both legal and conventional, has often been cited as the prime cause of the skilled labour shortage which occurred during this period. By restricting skilled jobs to occupancy by Whites only, where the demand for skilled workers exceeds the supply of Whites, there is by definition a shortage. As early as June 1963 an official survey conducted in all sectors of the economy revealed a shortage of 28662 White workers. (30) In April 1971 the shortage of White workers in the professional, semi-professional and technical category was 16585 whilst there was a shortage of 18595 White artisans. (31) There were also 8265 vacancies in clerical jobs conventionally filled by Whites. (32) Shortages in fact were probably greater because these figures are only based on a sample survey. This despite the fact that between 1965 and 1970 net immigration was contributing an estimated 14000 White skilled workers annually to the economy. (33)

However, one important factor in the shortage of skilled and technical labour which South Africa experienced during this period must surely be what Arrow and Capron analysed as 'dynamic shortages'. (34) Analysing the shortages of engineer-scientists that
developed in the United States in the 1950's, and arguing against
the conventional wisdom that this was due to the failure of the price
mechanism to eliminate this shortage, they conclude that:

"In the market for engineer-scientists as for any other
commodity we expect that a steady upward shift in the
demand curve over a period of time will produce a short-
age, that is, a situation in which there are unfilled
vacancies in positions where salaries are the same as
those being currently paid in others of the same type
and quality. Such a shortage we will term a dynamic
shortage. The magnitude of the dynamic shortage depends
upon the rate of increase in demand, the reaction speed
in the market, and the elasticity of supply and demand.
The reaction speed in any particular market depends
partly on institutional arrangements, such as the pre-
valence of long-term contracts, and partly on the rap-
idity with which information about salaries, vacancies,
and availability of personnel becomes generally available
throughout the market". (35)

Occupational advancement of Black workers in response to
these shortages has been widespread, and is well documented. (36)
Discussion can be limited to a consideration of the analytical studies
covering these changes, even though this literature is not extensive
while some of it deals only indirectly with Black occupational
mobility. The most important characterisations of this process can
be summarised as follows:

1). Market Segmentation

The first factor to emerge strongly from all these studies
is that the labour force in the major urban areas has remained seg-
mented whilst accommodating quite rapid occupational mobility.
Terrington studied Black occupational mobility in 20 Wage Board
industries for three different discrete periods: 1949 - 1961,
1962 - 1966 and 1967 - 1972. (37) In each of these periods more than
one wage determination had been made. The occupational structure in
these industries showed the following changes: unskilled labour
became less important and in some industries this category has actually
been abolished. However, semiskilled categories gained significantly
in size with Black occupational mobility and in fact were found in
most cases to be the largest single category in the occupational
structure. The skilled category on the other hand remained more or
less constant. It was also found that whilst Whites still dominated
the skilled strata, many Coloured and Asian workers entered at this
level in the later periods studied.

Terrington argued that, from the vantage point of the segregation of the races within the occupational structure, this process has not brought about significant integration of the labour force. Two factors operate to ensure that the occupational wage structure remains segmented. Firstly, skilled White workers have put up occupational barriers to minimise competition from Black workers. Secondly, however, if these workers cannot be trained as skilled workers, other methods must be found to ease a skill shortage. Terrington concluded that in South Africa skill shortages have not been remedied at the skilled but at the semiskilled level, and that most African economic advancement has occurred through mobility from the unskilled to the semiskilled level. Skill shortages appear to have a particular effect on the occupational structure: enough White workers cannot be found so a process of job dilution is used and these jobs are filled by Africans.

Dilution is thus a key method of maintaining a segmented labour market: African workers do not take over an entire skilled job but work under supervision of Whites as operatives. As Terrington puts it:

"The process of fragmentation increases racial segregation in the skill hierarchy by denying Africans access to the skilled positions, and, conversely, by committing them increasingly to work at the semiskilled level, but the occupational colour bar is preserved and inter-racial competition (and therefore competition among levels of skill) decreases". (38)

Thus, in a racially segmented labour market there is a system of labour allocation and a response to shortages. However, the adjustment process is not always met by unrestricted mobility, and free choice of workers (the critical assumptions of neoclassical theory) but by some other method linking the race and/or skill segments.

2). Union Strength and Political Power

Secondly, some of these studies postulate the development of a bargaining situation between unions and management in which quid pro quos are offered to union members in return for union agreement to open jobs to Black workers. Kraft (39) has noted the key influence which the White unions have in allowing or pre-
venting change on the shop floor. He argues that this derives partly from their political power as a major pressure group.

In this regard, there has in recent years been a marked shift in government policy in favour of Black occupational advancement. In 1971, for instance, the government issued a White Paper in which it accepted the recommendations of the Economic Advisory Council which advocated, inter alia, the reclassification of artisan work to permit the less skilled work to be done by semiskilled workers. The Council also advocated the training of Coloured and Indian workers for artisan work. As mentioned in Section 3.1.2, the government itself started a school for training Coloured apprentices as motor mechanics because of the White trade unions' bar on its members training Coloured apprentices. The government has also granted significant concessions to private industry to train Black workers. Present government policy, instead of discouraging all Black occupational mobility, would thus seem to be one of preparedness to adopt a neutral role as long as employers are able to win concessions from White trade unions.

3). Job Enrichment

Some authors suggest that a process of job enrichment takes place during job fragmentation, since the lesser-skilled parts of an artisan's job are fragmented and the artisan is left with the most complex group of tasks. This is a strong argument in favour of increased wages and fringe benefits for union members. Schlemmer points out that there is greater flexibility in dealing with labour problems provided an upgrading of the White worker's position takes place wherever Blacks are advanced. He notes:

"... there is the knowledge that the overall practice and policy of 'white job-enrichment', as espoused enthusiastically by some T.U.C.S.A. unions and as implemented in practice by railway unions, can turn Black advancement into White advantage". (42)

This increased job-pay enrichment dependency is reminiscent of McKersie and Hunter's point (Section 2) that labour rationalisation schemes, in order to be successful, must specify this as a precondition for wage increases. Without detailed analysis of individual industries and particular agreements, it is impossible to say whether White job enrichment genuinely occurs with concomitant benefits to White labour, or whether the payment of increased wages and added
fringe benefits represent a quasi-rent to a scarce factor (i.e. White union labour) with considerable bargaining power.

4). Relative Remuneration

Fourthly, the orientation of many of these studies is not only with Black occupational mobility but with the relative privileges and rewards for Black workers at particular occupational levels. This emphasis is necessary if one is to get a balanced assessment of the costs and benefits of Black occupational mobility. Schlemmer (43) notes that the importance of colour in occupational reward is most clearly seen when one considers the salaries for different races at equivalent levels of skill and training. Access for Black workers to the same occupations as Whites hold does not necessarily equalise economic rewards.

Terrington (44) argues that the process of job fragmentation in South Africa has four dimensions in terms of its impact on wage differentials. The first is the demand from White workers for the preservation of a racial differential. This process is often accomplished through job fragmentation whereby skilled work is broken down into different types of semiskilled work and made available to African workers, but at lower rates of pay than previous White or Coloured incumbents enjoyed. Apart from the fragmentation process, there may be a wholesale takeover by Blacks of a particular occupation, usually semiskilled and notably drivers. This tends to be accompanied by a decrease in the real wage of drivers. (45)

The second implication of the job fragmentation process on wage differentials is the White workers' demand that a skill differential be maintained. This is assured by handing over only the least-skilled parts of artisan work to Blacks. A skill differential will thus flow automatically from the differences in productivity of workers from the two groups. A corollary to this is that all lines of authority continue to flow from White to Black.

A third union demand, according to Terrington, is for the maintenance of a wage differential. This is not clear. As a tenet of union policy, it seems presumptuous and not wholly true. It may be thought to encompass the above two dimensions, since wage differentials are commonly determined by both skill and racial differences. One relevant meaning does present itself. The maintenance of any wage
53.

differential (in its wider sense) between two groups of workers doing the same work may be perpetuated if employers also recruit these workers from two separate and insulated supply sources. The realities of the labour market may be such that in order to recruit (say) Whites for a particular job, the employer faces one set of supply conditions, whilst in recruiting (say) Black workers for the same job the supply conditions in the Black labour market may be entirely different. This is one explanation of unequal pay for equal work. Therefore a demand that wage differentials be maintained may be a demand for the retention of two segmented labour markets.

5). Status Differentiation

The last implication of the job fragmentation process for wage differentials is the demand for the preservation of a status differential. This is considered separately here since an important conclusion of all the studies was that the status fears of White workers must be confronted and dealt with by management in any labour rationalisation scheme. In a situation where an industrial colour bar exists, the entry of Black workers is seen to lower the prestige and dignity of Whites in those jobs which are jointly performed by Whites and Blacks. Right-wing unions are worried about the status threats posed when Blacks are paid the same wage as Whites, even though this is in the interests of the White worker since it prevents undercutting. Schlemmer points out that when Blacks were allowed to become shunters on the railways, it is partly for this reason that they were named 'train-compilers' and not shunters. These status fears can also be checked at fragmentation agreements by allowing Whites to retain their artisan status, whilst Africans are only graded as semiskilled workers. This also provides a respectable rationale for the payment of lower wages to the semiskilled workers since productivity is lower, even though an objective evaluation of the job content in both cases would put rates of pay much closer together.

6). Ideological Constraints

Finally, all writers have referred to basic ideological constraints that must be adhered to within the entire framework of Black job advancement. Whilst these principles do not all have the force of law, they nonetheless act as very real constraints to the
unrestricted utilisation of Black labour. They are, firstly, a prohibition on a common workplace for Black workers promoted to jobs simultaneously performed by Whites, although this proviso does not apply in the case of Coloured labour anymore. Secondly, no Black worker may work in a superior position to a White worker, and thirdly, no White worker may be ousted from a job as a result of Black job advancement. (47)

Johnstone, (48) set out to refute "the view of many observers that (this) economic development is undermining the government's racial policies of apartheid and the system of white supremacy". He concludes that:

"... the government is not essentially opposed to the continuing movement of African labour into the 'White' economy; it is simply opposed to this process of labour mobility, which is necessary to continued economic development, becoming at the same time a process of residential and political mobility, which is not indispensable to economic growth and which is effectively being restricted through the system of labour controls". (49)

He continues that:

"... the most important labour controls are those which most essentially deprive Africans of access to and control of economic power (trade union, educational and income colour bars) rather than the job and movement colour bars. The latter can be - and are being - administered flexibly without endangering the White power structure. But this cannot be said of the others, certainly not of the trade union colour bar for instance". (50)

3.3 Conclusions

In this Section we attempted to explain the institutional factors governing labour utilisation in South Africa. In Section 3.1 we considered the labour legislation relevant to the utilisation of Black labour in the economy. The building industry, through the Bantu Building Workers Act and job reservation Determination Nos. 6 and 13 has been subject to very important constraints in its use of Black labour in skilled positions. The two-party industrial council system plays a most significant role in this respect since it is the framework within which all conditions of employment in the building industry are determined. As it was shown, labour legislation does leave room for change, for example through changes in the job categories included in closed shop agreements and job reservation.
reversals.

In the second part of the Section it was shown that the system has responded in the past to shortages of White labour e.g. during World War Two and in the 1960's.

With respect to changes after 1960 a number of conclusions can be drawn from the more recent literature. Primarily these studies stressed the centrality of the White trade unions in the labour market adjustment process, more particularly their role in bringing about de jure (as opposed to de facto) changes on the shop floor. This conclusion has relevance for Section 6, where the structure of the bargaining relationship at negotiations in the Witwatersrand building industry is discussed in detail.

The studies also suggest that the industrial labour force has still remained strictly segmented as between White and African, whilst accommodating limited occupational mobility. This implies that the protectionism inherent in job reservation and other industrial colour bars has not been done away with despite African occupational mobility. This conclusion will be taken further in Sections 6 and 7 in the context of job fragmentation agreements in the building industry.

These studies have also postulated a number of different influences which the White unions have on the process of job fragmentation, more specifically as far as the racial and skill related wage gaps are concerned. In particular it relates to the practice of job-enrichment and unions' insistence on the maintenance of differentials. Finally, it was shown that the enduring segmentation of the labour market also has important implications for the relative wages of White and Black workers at equivalent levels of skill. These conclusions are again relevant to Sections 6 and 7.
FOOTNOTES : SECTION 3

(1) S.T. van der Horst, "The Economic Implications of Political Democracy", supplement to Optima June 1960, p.6.


(3) S.T. van der Horst, op.cit., p.5.

(4) Race Relations Survey 1968, p.90.


(8) S.T. van der Horst, Native Labour in South Africa, p.244.

(9) H.W. van der Merwe and C.J. Groenewald (eds.), op.cit., p.149.

(10) Verslag van die Kommissie van Ondersoek na Aangeleenthede rakende die Kleurlingbevolkingsgroep RP38/1976, p.102.

(11) Ibid., p.102.

(11a) H. van der Merwe and C. Groenewald (eds.), op.cit., pp.150-151.

(12) S.T. van der Horst, Native Labour in South Africa, p.246.


(13b) Ibid., p.14.


(14a) Race Relations Survey 1971, p.249.

(15) H.W. van der Merwe and C.J. Groenewald, op.cit., p.152.

(16) Ibid., p.152.

(17) Wage Act (No. 44 of 1937) Section 6(b). Quoted by van der Horst, Native Labour in South Africa, p.254.


(19) Ibid., paragraph 229.

(20) S.T. van der Horst, Native Labour in South Africa, p.251.

(21) Ibid., p.251.

(22) Ibid., pp.264-265.

(23) J. Maree, op.cit.


(26) Ibid., p.10.

(27) G.V. Doxey, op.cit., p.181.


(31) Department of Labour, Manpower Survey No. 9.

(32) Ibid.


(35) Ibid., p.237.


(38) Ibid., p.11.


(39a) Report by the Inter-Departmental Committee on the Decentralisation of Industries. This report contained the recommendations of the Economic Advisory Committee.

(40) See, for example D.H. Terrington, op.cit.

(41) L. Schlemmer, op.cit.

(42) Ibid., p.16.

(43) Ibid.


(45) Ibid.

(46) L. Schlemmer, op.cit., p.16.


(48) F.A. Johnstone, op.cit.

(49) Ibid., pp.129-130.

(50) Ibid., p.130.
SECTION FOUR

THE SOUTH AFRICAN BUILDING INDUSTRY
The purpose of this section on the structure of the South African building industry is twofold: first, to indicate the general structure and relative significance of this industry and, secondly, to emphasise those characteristics of the industry which are crucial for an analysis and understanding of the labour market stresses and adjustments discussed in the following sections. A further reason for such a macro-perspective is the fact that the more detailed analysis in this study focuses on two regions only, with the emphasis on African labour in the one and Coloured labour in the other region. The wider perspective sketched in this section is to facilitate generalisation of those more specific findings.

This section is largely based on published statistics and information from generally available secondary sources, which is the main reason why some of the aspects are covered in a rather eclectic way. Primary data collection was limited to the two regions analysed in later sections.

4.1 Relative Significance of the Building Industry

With the focus on labour market dynamics the relative significance of this industry is measured in terms of its contribution to overall employment in South Africa. Table 1 shows the employment pattern of the economically active population in South Africa in 1970.
The total labour force of each sector is given in column 1. In terms of this criterion, construction ranks sixth in the economy, preceded by agriculture, mining, manufacturing, commerce and services. In 1970 construction had a labour force of almost half a million, compared with just over one million in the manufacturing sector and almost 700,000 employed in the mining sector.

Column 2 indicates the percentage breakdown of the economically active population, from which we see that the con-
struction sector only employs about 5.5 percent of the labour force. If agriculture as well as the unemployed/unspecified categories, are excluded, thus giving a more realistic definition of the urban industrial sector, construction constitutes 8.9% of the labour force, thus making it more significant as an employment sector (See column 3 of Table 1).

It could be pointed out there that there is another method of showing the significance of the construction sector in the economy. This is by looking at figures showing the gross domestic product by kind of economic activity. These figures are shown in section 4.4.

The figures for construction in Table 1 include only the work of contractors, leaving aside associated professions like architects and quantity surveyors. Neither do they reflect the fact that construction activities give rise to employment in other sub-sectors of the economy like plumbing, electrical equipment, fittings, structural metal products, paints and other chemical products, materials, handling machinery, etc. Because of this related activity, some countries have different methods of aggregating the construction sector in their national product statistics. This makes valid international comparisons very difficult.

Table 2 shows the change in the racial composition of the construction labour force between 1959/1960 and 1973.
<table>
<thead>
<tr>
<th>Year</th>
<th>Whites</th>
<th>%</th>
<th>Coloureds</th>
<th>%</th>
<th>Asians</th>
<th>%</th>
<th>Africans</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959/60</td>
<td>123800</td>
<td>27400</td>
<td>22.1</td>
<td>16800</td>
<td>13.5</td>
<td>700</td>
<td>0.5</td>
<td>78900</td>
<td></td>
</tr>
<tr>
<td>1960/61</td>
<td>130800</td>
<td>28500</td>
<td>21.7</td>
<td>18100</td>
<td>13.8</td>
<td>700</td>
<td>0.5</td>
<td>83500</td>
<td></td>
</tr>
<tr>
<td>1961/62</td>
<td>121900</td>
<td>26000</td>
<td>21.3</td>
<td>18300</td>
<td>15.0</td>
<td>900</td>
<td>0.7</td>
<td>76800</td>
<td></td>
</tr>
<tr>
<td>1962/63</td>
<td>136700</td>
<td>27900</td>
<td>20.3</td>
<td>20100</td>
<td>14.6</td>
<td>1300</td>
<td>0.9</td>
<td>87400</td>
<td></td>
</tr>
<tr>
<td>1963/64</td>
<td>171200</td>
<td>32700</td>
<td>19.1</td>
<td>25300</td>
<td>14.7</td>
<td>2000</td>
<td>1.1</td>
<td>111100</td>
<td></td>
</tr>
<tr>
<td>1964/65</td>
<td>181500</td>
<td>36600</td>
<td>20.1</td>
<td>21500</td>
<td>11.8</td>
<td>1100</td>
<td>0.6</td>
<td>122300</td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>224900</td>
<td>44200</td>
<td>19.6</td>
<td>25100</td>
<td>11.1</td>
<td>2200</td>
<td>0.9</td>
<td>153500</td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>252000</td>
<td>48500</td>
<td>19.2</td>
<td>31200</td>
<td>12.3</td>
<td>900</td>
<td>0.4</td>
<td>169700</td>
<td></td>
</tr>
<tr>
<td>1967</td>
<td>268800</td>
<td>50000</td>
<td>18.6</td>
<td>36000</td>
<td>13.3</td>
<td>2900</td>
<td>1.2</td>
<td>179900</td>
<td></td>
</tr>
<tr>
<td>1968</td>
<td>314900</td>
<td>54500</td>
<td>17.3</td>
<td>41600</td>
<td>13.2</td>
<td>3800</td>
<td>1.2</td>
<td>215000</td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>358300</td>
<td>59800</td>
<td>16.6</td>
<td>45300</td>
<td>12.6</td>
<td>4900</td>
<td>1.4</td>
<td>248300</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>385800</td>
<td>60600</td>
<td>15.7</td>
<td>47600</td>
<td>12.3</td>
<td>5400</td>
<td>1.4</td>
<td>272200</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>336500</td>
<td>58800</td>
<td>15.2</td>
<td>46900</td>
<td>12.1</td>
<td>5600</td>
<td>1.4</td>
<td>275100</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>391700</td>
<td>59300</td>
<td>15.1</td>
<td>47600</td>
<td>12.1</td>
<td>5600</td>
<td>1.4</td>
<td>279200</td>
<td></td>
</tr>
</tbody>
</table>

The first feature to notice is the rapid increase in the size of the labour force over the 13 years, i.e. from 124,000 to 392,000, which is an increase of 216.2%. A second feature is the changing racial composition of the labour force. From 1959/60 to 1973 the percentage of Whites in the sector dropped from 22.1% to 15.1%. In fact, from 1920 to 1934 the share of Whites in the labour force increased from 24.0% to 35.5%, but since then the trend has been in the opposite direction. Thus the process revealed for the 1960's is really the tail-end of a far longer historical process which began in the mid-1930's.

The share of African workers in the sector increased from 63.7% in 1959/60 to 71.2% in 1973, which is equivalent to an almost fourfold increase from 79,000 to 280,000. Employment of Asians increased only marginally from 0.5% to 1.4%; in absolute figures the increase was from 731 to 5,600. Whilst the share of coloured workers decreased from 13.5% to 12.1% over the 14-year period, their absolute numbers increased from 16,790 to 47,600, i.e. an increase of 183.5%. These figures underestimate the regional importance of Coloured labour in the industry. Coloured workers in the industry are found predominantly in the Western Cape, Eastern Cape and in Natal whilst few Coloured people are employed in the Transvaal and Orange Free State.

4.2 Structure of the Industry

The construction sector is composed of three industries: building, civil engineering and electrical contracting. Each has its own separate administration. The South African Federation of Civil Engineering Employers and the Electrical Contractors' Association represent employers in these industries. The Electrical Contractors' Association negotiates its own agreements with the unions in that industry. In areas where electrical contracting is not covered by separate agreements the conditions of employment of the building agreement apply. There are no registered unions in civil engineering and conditions of employment are set unilaterally by the South African Federation of Civil Engineering Contractors. For unskilled workers conditions are laid down in Wage Board determinations. The building industry therefore has no direct jurisdiction over these other two industries, even though the civil engineering body has as members a
number of building contractors who temporarily convert themselves into civil engineering employers during the course of their work. Table 3 gives an idea of the relative size of each of the industries. Since strictly speaking sub-contractors work in both building and civil engineering the value of their work is shown as a separate amount. Unfortunately figures are only available on the basis of 1963/64, but the relative change is probably insignificant. Table 4 gives an indication of the type of work done by sub-contractors and the division of their work between building and civil engineering.

Table 3: Construction Sector Activities by Value of Work 1963/1964

<table>
<thead>
<tr>
<th>Activity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Contractors: Building</td>
<td>R222.6 million</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>R 90.7</td>
</tr>
<tr>
<td>Electrical Contracting</td>
<td>R 35.9</td>
</tr>
<tr>
<td>All Sub-Contractors</td>
<td>R 61.6</td>
</tr>
</tbody>
</table>

Source: Department of Statistics, Census of Construction 1963/64; Tables 1 and 10.
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Work Done bv Sub-Contractors in the Construction Sector 1963/64 (R OOO's)

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Deoartment of Statistics, Census of Construction 1963/64, Table 10.

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5408

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141

12844

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860

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3020

5884

431

12

6938

11 7

22238

34

975

57

Building

306

1156

7639

3508

5420

126

39376

2788

1908 6448

Civil
Engineering

1166

13523

3939

243

61614

1186 1911 6505

All SubContractors

Source


The building and civil engineering industries are both 'construction' industries and as such closely related. It frequently happens that employees in the one industry perform work indistinguishable in character from work done in the other. The feature that distinguishes the two industries is not so much the type of work performed as the kind of structure erected. Basically civil engineering includes excavation work, and the construction of harbours, bridges, railways and dams, as well as shaft-sinking and roadmaking. Apart from their close functional and corporate relationship the two industries are widely different. Civil engineering activities are extensively located on isolated sites in rural areas, whilst building is confined mostly to urban areas. Building demands more skilled labour-intensive work because there is more finishing work. In the electrical contracting industry "employers and employees are associated for the design, preparation, erection, installation, repair and maintenance of all electrical equipment, forming an integral and permanent portion of buildings". (2)

The above distinction does not dispose of the very difficult problem of defining the limits of the building industry and the boundary of the activities to which the industry's rules, labour, legislation and principles apply. There is for instance the question of whether building maintenance work by building tradesmen at a factory should be covered by the labour legislation for the building industry. In an early test case Rex v. Siderski (1928 T.P.D. 109) the accused, managing director of a chemicals factory in the Transvaal, appealed against his conviction of contravening regulations in the local building agreement. In the course of his business he employed two bricklayers on maintenance work which included the building of a storeroom on the premises. It was agreed that he had temporarily converted himself into an employer in the building industry because of these two artisans. He was therefore bound by the local building industry's agreement and had to pay the prescribed wages. The judgement held that the employer could not be said to have any business other than chemical manufacture; he had not employed the artisans on any industry other than the one he was conducting, and therefore remained an employer in chemical manufacture and had not converted himself into an employer in the building industry.

The general rule is that the character of an industry is de-
terminated not by the kind of occupation in which the employees are engaged, but by the nature of the enterprise in which both employer and employees are associated for a common purpose. Once the character of the industry is determined all the employees are engaged in that industry whatever the actual work may be which the employer allots to them. It is therefore common to explicitly exclude from the provisions of local building agreements building artisans doing maintenance work on the gold mines and in factories and firms like Iscor. These artisans would have all their conditions of employment determined by the parties to the industrial council in the industry in which they work.

Section 15 of the Bantu Building Workers Amendment Act (Act No. 60 of 1955) also excludes from the rules of the industry work done in private residences 'in respect of the renovation, maintenance, repair or alteration (excluding the addition of one or more rooms) of the residence which he occupies.' In *Rex v. Port Elizabeth Municipality* (1928 E.D.L. 49) it was ruled that a municipality engaged in a public utility undertaking was not bound by the local building industry agreement. Thus, there is a substantial amount of building work going on which is not part of the building industry, and which also does not fall into either civil engineering or electrical contracting industries.

Fourteen building industrial councils and seventeen Master Builders' Associations operate in the country. On 31st May 1974 Industrial Councils operated in the following regions: Albany (Grahamstown), Bloemfontein, Boland (magisterial districts of Paarl, Wellington, Stellenbosch, Somerset West and the Strand), Cape Peninsula, Durban, East London, Kimberley, Kroonstad, Natal-Northern Areas, Pietermaritzburg and Natal Midlands, Port Elizabeth, Pretoria and Witwatersrand, Queenstown and Worcester. Builders' interests are represented at the national level by the Building Industries Federation South Africa which is a federal union of autonomous affiliated associations.

Except for a short period during the 1930's when the National Industrial Council for the Building Industry existed, building negotiations have always been conducted on a regional basis between Master Builders' Associations (MBA's) and the unions in that
area. At present there is only one area - the O.F.S. Goldfields - where conditions of employment are set unilaterally by an MBA. In this case the MBA consists of a well-organised and closely knit group of employers.

Industrial councils seldom extend their area of jurisdiction beyond the town or city within which they operate. This also applies i.a. to rural areas, unless a significant amount of building work is being carried out there. As a result in rural areas building work (as opposed to civil engineering) is not subject to any specific labour legislation, such as minimum wages, maximum hours of work, etc.

4.3 Regional Distribution of Building Activity

Table 5 shows for 1975 the value of building work completed in the nine major metropolitan areas of the country. The concentration within a few areas is striking.

Table 5 : Private Sector Buildings Completed in 1975

<table>
<thead>
<tr>
<th>Area</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witwatersrand</td>
<td>R258,4m</td>
</tr>
<tr>
<td>Durban</td>
<td>R142,9m</td>
</tr>
<tr>
<td>Cape Town</td>
<td>R104,0m</td>
</tr>
<tr>
<td>Pretoria</td>
<td>R 62,6m</td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>R 21,6m</td>
</tr>
<tr>
<td>Pietermaritzburg</td>
<td>R19,4m</td>
</tr>
<tr>
<td>Bloemfontein</td>
<td>R16,2m</td>
</tr>
<tr>
<td>East London</td>
<td>R13,4m</td>
</tr>
<tr>
<td>Kimberley</td>
<td>R 6,3m</td>
</tr>
</tbody>
</table>


Pretoria and the Witwatersrand alone already account for almost half of all the buildings completed in the major metropolitan areas. These areas are followed by Durban and Cape Town. These four areas constitute more than 80 percent of all the metropolitan areas.

Table 6 shows similar information but on a different basis. It disaggregates building work completed in the private sector in 1971 into (a) provincial sub-totals, (b) new residential and non-residential construction plus additions and alterations, and (c) that completed in metropolitan areas and rural areas as well as
"other important urban areas". The latter distinction is based on the Statistical Yearbook, 1974, where 59 other towns such as Paarl, Welkom, Grahamstown, etc. are identified.

Table 6: Buildings Completed by the Private Sector in 1971

<table>
<thead>
<tr>
<th>Area</th>
<th>Residential Construction Rm.</th>
<th>Non-Residential Construction Rm.</th>
<th>Additions &amp; Alterations Rm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Province</td>
<td>105,1</td>
<td>50,7</td>
<td>35,5</td>
</tr>
<tr>
<td>MA</td>
<td>57,0</td>
<td>31,1</td>
<td>26,8</td>
</tr>
<tr>
<td>OUA</td>
<td>17,3</td>
<td>7,4</td>
<td>3,9</td>
</tr>
<tr>
<td>Rest</td>
<td>30,7</td>
<td>12,2</td>
<td>4,7</td>
</tr>
<tr>
<td>Natal</td>
<td>67,5</td>
<td>27,8</td>
<td>25,9</td>
</tr>
<tr>
<td>MA</td>
<td>40,9</td>
<td>19,9</td>
<td>21,7</td>
</tr>
<tr>
<td>OUA</td>
<td>5,9</td>
<td>2,0</td>
<td>0,8</td>
</tr>
<tr>
<td>Rest</td>
<td>20,6</td>
<td>5,8</td>
<td>3,2</td>
</tr>
<tr>
<td>Transvaal</td>
<td>183,2</td>
<td>60,2</td>
<td>48,2</td>
</tr>
<tr>
<td>MA</td>
<td>140,9</td>
<td>39,1</td>
<td>41,6</td>
</tr>
<tr>
<td>OUA</td>
<td>26,7</td>
<td>11,2</td>
<td>4,6</td>
</tr>
<tr>
<td>Rest</td>
<td>15,5</td>
<td>9,8</td>
<td>1,9</td>
</tr>
<tr>
<td>Orange Free State</td>
<td>17,2</td>
<td>9,4</td>
<td>5,2</td>
</tr>
<tr>
<td>MA</td>
<td>6,9</td>
<td>3,6</td>
<td>2,1</td>
</tr>
<tr>
<td>OUA</td>
<td>7,0</td>
<td>3,5</td>
<td>2,1</td>
</tr>
<tr>
<td>Rest</td>
<td>3,2</td>
<td>2,3</td>
<td>0,9</td>
</tr>
<tr>
<td>Total</td>
<td>R373,1m</td>
<td>R148,4m</td>
<td>R114,9m</td>
</tr>
</tbody>
</table>

Abbreviations:  
MA - metropolitan areas  
OUA - other important urban areas  
Rest - balance of work completed.


According to the information in Table 6 the metropolitan areas (as listed in Table 5) account for roughly 70% of all building
work done in the country. Thus a significant amount of building work is still done in smaller urban and rural areas. The building labour force in these areas is still quite large, i.e. of the order of 100,000 workers. The Witwatersrand and Pretoria alone accounted for one-third of the value of all buildings completed in 1971. In the future this share will hardly decline, given the nature of the Witwatersrand as an expanding urban industrial complex. In contrast, in the Orange Free State the industry is quite insignificant, compared with the country as a whole (about 5 percent) and the Transvaal, (about 11 percent).

In the country as a whole 58.6% of all buildings erected (by value) were residential (i.e. houses and flats), whilst 23.3% were non-residential (i.e. office blocks, factories, dams, harbours, etc.) and 18.0% was for additions and alterations. One would expect non-residential construction to bear a much higher proportion to total buildings completed in urban than rural areas, given that metropolitan areas are the centres of industry, yet Table 6 does not bear this out, largely because major non-residential civil engineering projects are undertaken in rural areas.

4.4 Trends in Output and Employment

Some aspects of the growth of the construction during the period 1960 to 1973 are analysed in Table 7. The Table is largely self-explanatory and hence requires no detailed comment. Output figures only refer to work carried out in the private contracting industry. The amount of work done by the public sector is not large. The Central Government and Provincial Administrations (including the Railways and Public Works Department) have all their work done by outside contractors, apart from the maintenance. Only municipalities and divisional councils maintain their own building sections, mainly for the construction of low-cost housing. The figures in the Table refer to construction work in the eighteen principal municipalities and 44 surrounding areas, as well as in 45 smaller towns. With the exception of the data on the building and civil engineering industries, all the statistics have been obtained from the S.A. Reserve Bank's Quarterly Bulletin of Statistics. Unfortunately the figures in columns 4 and 5 were taken from a source which is not updated regularly. The figures in columns 1, 2 and 3 have been deflated with the building price index compiled by the Stellenbosch Bureau for Economic Research.
**Table 7: Trends in Output and Employment in the Construction Sector**

<table>
<thead>
<tr>
<th>Year</th>
<th>Buildings Completed</th>
<th>Physical Output</th>
<th>Residences</th>
<th>Non-Building Establishments</th>
<th>Civil Engineering</th>
<th>Physical Employment</th>
<th>Overtime Employment</th>
<th>All Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>105,8</td>
<td>208,3</td>
<td>90,6</td>
<td>262,4</td>
<td>84,8</td>
<td>90,6</td>
<td>90,6</td>
<td>90,6</td>
</tr>
<tr>
<td>1963</td>
<td>115,8</td>
<td>227,4</td>
<td>100,2</td>
<td>269,8</td>
<td>84,8</td>
<td>100,2</td>
<td>100,2</td>
<td>100,2</td>
</tr>
<tr>
<td>1964</td>
<td>122,0</td>
<td>234,8</td>
<td>102,7</td>
<td>270,0</td>
<td>10,7</td>
<td>102,7</td>
<td>102,7</td>
<td>102,7</td>
</tr>
<tr>
<td>1965</td>
<td>129,5</td>
<td>270,0</td>
<td>109,4</td>
<td>251,1</td>
<td>10,7</td>
<td>109,4</td>
<td>109,4</td>
<td>109,4</td>
</tr>
<tr>
<td>1966</td>
<td>130,9</td>
<td>278,5</td>
<td>114,2</td>
<td>258,8</td>
<td>10,7</td>
<td>114,2</td>
<td>114,2</td>
<td>114,2</td>
</tr>
<tr>
<td>1967</td>
<td>125,8</td>
<td>288,5</td>
<td>119,4</td>
<td>266,8</td>
<td>10,7</td>
<td>119,4</td>
<td>119,4</td>
<td>119,4</td>
</tr>
<tr>
<td>1968</td>
<td>125,2</td>
<td>295,8</td>
<td>124,7</td>
<td>274,6</td>
<td>10,7</td>
<td>124,7</td>
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<tr>
<td>1969</td>
<td>126,6</td>
<td>303,6</td>
<td>129,9</td>
<td>282,9</td>
<td>10,7</td>
<td>129,9</td>
<td>129,9</td>
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<tr>
<td>1970</td>
<td>128,7</td>
<td>311,2</td>
<td>135,2</td>
<td>291,2</td>
<td>10,7</td>
<td>135,2</td>
<td>135,2</td>
<td>135,2</td>
</tr>
<tr>
<td>1971</td>
<td>130,9</td>
<td>318,7</td>
<td>140,5</td>
<td>300,0</td>
<td>10,7</td>
<td>140,5</td>
<td>140,5</td>
<td>140,5</td>
</tr>
<tr>
<td>1972</td>
<td>133,2</td>
<td>328,5</td>
<td>145,8</td>
<td>308,8</td>
<td>10,7</td>
<td>145,8</td>
<td>145,8</td>
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<tr>
<td>1973</td>
<td>134,5</td>
<td>336,8</td>
<td>151,1</td>
<td>317,4</td>
<td>10,7</td>
<td>151,1</td>
<td>151,1</td>
<td>151,1</td>
</tr>
</tbody>
</table>

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*All prices at 1963 level.*

**Sources:**
1. [SA Reserve Bank, Quarterly Bulletin of Statistics, June 1974, pages 5-84 and 5-86.](#)
2. [Anon, Quarterly Bulletin, September 1971, Tables 1, 3 and 5.](#)
3. [Department of Statistics, Census of Construction 1963/64, 1965/66 and 1969/70.](#)

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*Note: All data is at 1963 levels.*
Since the mid-1940's construction in South Africa has been a growth industry with a rate of expansion considerably higher than that of the economy as a whole. Between 1946 and 1971, construction output in real terms increased by 248.8%.\(^{(5)}\) Since 1946 the share of construction in the GDP has doubled: from 1946 to 1963 it rose from 2.2% to 3.0%, and by 1972 it had increased to 4.7%.\(^{(6)}\) By contrast the share of manufacturing in the GDP rose from 17.1% to 23.5% between 1946 and 1973.\(^{(7)}\)

After the war the building industry found itself under strong pressure to meet the housing backlog. Building permits were abolished in 1948 and a number of schemes were introduced to train ex-servicemen as artisans. In the nine years between 1946 and 1954 real output in the industry doubled.\(^{(8)}\) Total employment in these years rose from only 39,915 in 1946 to over 102,653 eight years later.\(^{(9)}\) This was followed by a period of slow but steady growth until 1961, interrupted only by the 1956/57 slump.

The recession of 1961/62 had an adverse effect on all industries, although a look at Table 7 indicates that the effect on building was relatively more severe. Whilst non-residential construction showed only a moderate decline, homebuilding fell by 35% and output in the building sector declined by almost 20% in three years. Over the same period, the physical production of manufacturing still increased steadily. Fluctuations in employment were also more severe in the building industry, whilst the index of manufacturing employment rose from 86.5 to 92.8 between 1960 and 1962, employment of building workers fell from 120,847 in 1961 to 121,893 the following year.\(^{(10)}\) It was during this slack period that many artisans left the industry permanently to seek employment in more stable industries.

The rapid economic revival of the 1960's found the industry so ill-equipped to meet the challenge that building control had to be re-imposed as early as 1964. The period from 1963 to 1967 is generally considered to be exceptional for the construction sector, in as far as its output in real terms almost doubled over the four years, rising from R140,83 million in 1963 to R267.01 million in 1967.\(^{(11)}\) Table 7 (columns 4 and 5) show that civil
engineering was growing at a slightly faster rate than building during this period. Between 1963 and 1965 the share of construction in the GDP increased from 3% to 4% (12), whilst that of manufacturing rose from 21.9 to 23.4 percent. (13)

Non-residential construction fluctuated in line with investment generally during the 1960's and therefore tended to move pro-cyclically (Table 7, column 3). The uninterrupted growth in non-residential construction between 1963 and 1967 should be seen as a result of the investment boom in the economy. Overall domestic capital formation rose from R575 million in 1962 to R1821 million in 1967, as indicated in Table 8. Between 1961 and 1965 gross domestic fixed investment rose at a rate of 12.9% annually compared with only 8.5% for private consumption expenditure. (14) This includes investment of both the private and public sectors. Whilst private investment decreased sharply in 1966 precipitating a slump in non-residential construction which was to last for two years, public capital outlays increased steadily throughout the decade.

Table 8: Net Domestic Capital Formation 1962-1961 (Rm)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Enterprises</td>
<td>267</td>
<td>538</td>
<td>637</td>
<td>794</td>
<td>585</td>
<td>1023</td>
<td>637</td>
<td>1017</td>
<td>1316</td>
<td>1401</td>
</tr>
<tr>
<td>Public Sector *</td>
<td>308</td>
<td>388</td>
<td>473</td>
<td>685</td>
<td>728</td>
<td>798</td>
<td>803</td>
<td>899</td>
<td>1194</td>
<td>1342</td>
</tr>
<tr>
<td>Total</td>
<td>575</td>
<td>926</td>
<td>1110</td>
<td>1479</td>
<td>1313</td>
<td>1821</td>
<td>1440</td>
<td>1916</td>
<td>2510</td>
<td>2743</td>
</tr>
</tbody>
</table>

* Including public authorities and public corporations.


Compared to most forms of non-residential construction which fluctuated in line with investment and thus moved pro-cyclically, house-building was subject to separate influences. The factors determining house-building are not very relevant to non-residential building. A major determinant of house-building is the
supply of mortgage finance since building societies normally fund about 80 percent of new residential construction. The chief reason for the cyclical availability of money is that building societies operate on the basis of borrowing short and lending long in a very competitive money market. The break in continuity of housing supply caused by a lack of funds, invariably builds up into a demand backlog which tends to compound the pressure on the industry in any subsequent upturn. Looking at Table 7 (columns 2 and 6), we see the close correlation between mortgage finance granted by building societies and the level of residential construction. The boom conditions of the early sixties were an indirect result of the tremendous growth in fixed deposit funds placed with the building society movement in this period, (15) as well as the high level of Government expenditure on housing projects. Between 1961 and 1971 the public sector spent R745 million on new housing. (16) The rate of output of this sector rose by almost 70% in the three years from 1963 to 1965, and house-building was only able to cope with the demand because of the large number of speculative builders operating on the fringe of the industry who took advantage of prevailing profitable opportunities. By 1965 mortgage advances had dropped back to their pre-1963 levels and only reached the 1964 level again four years later, (Table 7, column 6).

Thus, in sharp contrast to the manufacturing sector, construction output in real terms (at 1963 prices) rose from only R360 million in 1963 to R585 million in 1967, levelling at R581 million in 1968. (17) Similar trends are evident for the non-residential sector of the industry. In 1970 the industry resumed its rapid pre-1967 growth, again with both sectors participating initially. Between 1967 and 1969 the availability of mortgage finance had eased considerably and home-building recovered rapidly. It continued to maintain high levels until the end of 1971.

The severe pressure placed on non-residential building during this period was the result of huge increases in net domestic fixed capital formation (NDPCF). Investment in buildings rose from R1,503 million in 1969 to R2,032 million two years later, (Table 9). The upswing was initiated by the private sector in 1968/69, but public sector investments started to dominate by 1969. Whereas
public authorities accounted for only 20.1% of the increase in NDFCF in 1968/69, this proportion rose to 63.5% in 1970/71. By the beginning of the 1970's the authorities found it necessary to suppress demand by cutting back heavily on planned public capital expenditure. Severe pressure on the labour resources of the industry show up in both the rapid increase in employment (from 1967 to 1971 total employment increased from 252,000 to 385,800) and in the amount of overtime worked during these years.

Table 9 : Gross Domestic Capital Formation (Rm)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Construction</td>
<td>587</td>
<td>666</td>
<td>827</td>
<td>1058</td>
<td>1162</td>
<td>1263</td>
<td>1305</td>
<td>1503</td>
<td>1769</td>
<td>2032</td>
</tr>
<tr>
<td>Transport equipment/ machinery</td>
<td>460</td>
<td>600</td>
<td>735</td>
<td>877</td>
<td>880</td>
<td>904</td>
<td>981</td>
<td>1029</td>
<td>1263</td>
<td>1475</td>
</tr>
<tr>
<td>Transfer costs</td>
<td>25</td>
<td>36</td>
<td>49</td>
<td>42</td>
<td>42</td>
<td>52</td>
<td>64</td>
<td>99</td>
<td>107</td>
<td>97</td>
</tr>
<tr>
<td>Gross domestic fixed capital formation</td>
<td>1072</td>
<td>1302</td>
<td>1611</td>
<td>1977</td>
<td>2084</td>
<td>2219</td>
<td>2350</td>
<td>2631</td>
<td>3139</td>
<td>3604</td>
</tr>
<tr>
<td>Change in inventories</td>
<td>46</td>
<td>211</td>
<td>147</td>
<td>221</td>
<td>20</td>
<td>472</td>
<td>37</td>
<td>316</td>
<td>508</td>
<td>404</td>
</tr>
<tr>
<td>Gross domestic capital</td>
<td>1118</td>
<td>1513</td>
<td>1758</td>
<td>2198</td>
<td>2104</td>
<td>2691</td>
<td>2387</td>
<td>2947</td>
<td>3647</td>
<td>4008</td>
</tr>
</tbody>
</table>


An important feature of the industry that emerges from an analysis of the time series, is the extremely marked pattern of seasonal and cyclical fluctuations. This is largely attributable to the changing pattern of overall demand for the industry's services. For example, in 1966 and 1968 private investment fell sharply, precipitating a two year slump in non-residential construction. Construction output in real terms was R267 million in 1967, but by the following year had dropped back to R257 million. Another example is the Sharpeville recession. While it affected all in-
industries adversely, Table 7 shows that the effect on building was much more severe, with total output in construction declining by almost 20% over one year (column 1).

In employment the building sector also experiences more severe cyclical fluctuations than most other sectors, as can be seen by comparing columns 8 and 10 of Table 7, e.g. employment in the building sector fell from 130,847 in 1961 to 121,893 the following year, while employment in manufacturing actually increased.

Fluctuations differ between regions and the pressure on the industry is often more severe in one region than another. Between 1966 and 1970 construction output rose by 86.7% in Cape Town, 71% on the Witwatersrand (112.9% in Pretoria alone), 45.9% in East London and only 32.3%, 11.7% and 3.3% in Durban, Bloemfontein and Port Elizabeth respectively. Between 1960 and 1962, the drop in output was also greater in some regions than in others: Cape Town showed a decline of only 14%, whilst building work on the Witwatersrand dropped by 22% (Pretoria declined by 43% and Johannesburg dropped 38% between 1960 and 1963) and in sharp contrast, Port Elizabeth actually showed a small increase (1.2%).

The disparity between peaks and troughs during these years was higher on the Witwatersrand than in other regions of the country. This is accounted for by the fact that after 1963 a high proportion of manufacturing and commercial investment took place in that region. The Witwatersrand alone accounted for 52% of all manufacturing and commercial building investment in the major metropolitan areas in 1966. Of greater importance, though, is the fact that in the same year, volatile non-residential construction accounted for 27.7% of all Witwatersrand building work whilst in areas like Cape Town and Durban it only accounted for 15.8% and 14.8% respectively.

4.5 Corporate Structure of the Building Industry

For the most comprehensive perspective on the structure of firms in the building industry we have to include sub-contractors, even though they function between the building and civil engineering sub-sectors. Table 10 shows the breakdown by employee size group of main contractors in building, as well as all sub-contractors. An
establishment refers to any office which controls the operations of a firm in a specific area. This differs from a firm which, as a legal entity may comprise one or more establishments.

Table 10: Corporate Structure of the Private Building Industry 1965/66-1969/70

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>0-4</td>
<td>930</td>
<td>817</td>
<td>1.6%</td>
</tr>
<tr>
<td>5-9</td>
<td>1023</td>
<td>1006</td>
<td>4.3%</td>
</tr>
<tr>
<td>10-19</td>
<td>948</td>
<td>848</td>
<td>8.0%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>2901</strong></td>
<td><strong>2671</strong></td>
<td><strong>13.9%</strong></td>
</tr>
<tr>
<td>20-49</td>
<td>838</td>
<td>545</td>
<td>15.7%</td>
</tr>
<tr>
<td>50-99</td>
<td>293</td>
<td>106</td>
<td>12.6%</td>
</tr>
<tr>
<td>100-199</td>
<td>194</td>
<td>40</td>
<td>16.7%</td>
</tr>
<tr>
<td>200-299</td>
<td>61</td>
<td>14</td>
<td>9.2%</td>
</tr>
<tr>
<td>300-399</td>
<td>24</td>
<td>-</td>
<td>5.2%</td>
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<tr>
<td>400-499</td>
<td>14</td>
<td>1</td>
<td>3.9%</td>
</tr>
<tr>
<td>500-999</td>
<td>24</td>
<td>-</td>
<td>10.3%</td>
</tr>
<tr>
<td>1000+</td>
<td>9</td>
<td>-</td>
<td>11.8%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>33</strong></td>
<td>-</td>
<td><strong>22.1%</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4358</strong></td>
<td><strong>3376</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Abbreviations:  
A - Number of Establishments  
B - Number of Working Proprietors  
C - Share of Total Employment (%)  

Sources:  
Department of Statistics, Census of Construction 1965/66, Table 3.1  
Department of Statistics, Census of Construction 1967/68, Table 1.3  
Department of Statistics, Census of Construction 1969/70, Table 1.3
The most characteristic feature of firms in the industry is the diversity of firm sizes. This can be seen quite clearly from Table 10. In 1969/70 there were 3741 establishments with 19 or fewer employees employing only 13.5% of the labour force, whilst the 47 largest establishments employed over one-quarter of the total labour force.

We note also from the table that most of the firms (i.e. 0-19 employees) have working proprietors. The structure of the firm is essentially limited to the builder and his small team. The builder is responsible for all the planning, negotiation of contracts and supervision of work on site and his home usually doubles up as an office. Firms in this category characteristically operate on repair and maintenance jobs and home-building. Furthermore almost all subcontractors fall into this category.

The share of these small-scale enterprises has stayed constant during the late 1960's. This is undoubtedly associated with the fact that the competitive advantage of large firms is not great. Economies of scale in building operations are few for various reasons: expensive capital and equipment is not needed; building merchants reduce the need to carry large stocks; building know-how is easily acquired and only becomes more technical for very large projects. Competition therefore also tends to be keener in house-building.

In line with this perspective on the competitive pattern of the industry one would expect building booms to be accompanied by the entry of new small firms (often it is an artisan setting himself up as a contractor) and, conversely, slumps to be associated with an exodus of these small firms. This is difficult to support on the basis of the data in Table 10, which shows that the share of total employment of small firms actually declined between 1957/68 and 1969/70, the latter years being a boom period for the industry. It is however known that a large number of subcontractors did not register as employers with industrial councils when entering during that year, especially those doing subcontracting on the basis of their labour only. This is an illegal practice usually associated with peak conditions in the industry.

The larger firms are the more stable section of the
industry in terms of the longevity of each firm. Amongst them are usually the most experienced builders and the majority are main contractors, concentrating on a region, with operations on several sites simultaneously. Only the largest of these firms operate nationally, combining building activities with civil engineering. They may therefore have a number of establishments of varying sizes in different centres. As a result we cannot get a clear picture of the size of the largest firms from Table 10, e.g. the Roberts Construction Company (which operates in the Transvaal, Orange Free State and Natal) employed 35,000 workers in 1976, about 50 percent of them on its civil engineering operations. (23) Its closest rival, L.T.A., employed 21,200 workers in 1975. (24) At this stage the size of firms decreases rapidly and the size of the next biggest firms in the industry is of the order of 1,000 employees.

The larger establishments increased their share of total employment from 22.1 percent in 1965 to 27.2 percent in 1969 (Table 10). While the total building labour force increased by 38.9 percent between 1965/66 and 1969/70 that of establishments employing more than 500 workers increased by 68.3 percent over the same period. This cannot be seen as an accurate reflection of their growth, since the larger firms expand their employment in order to undertake other tasks as well. The increasingly more complex Government contracts result in the large firms becoming ever more diversified in their construction activities, including e.g. civil engineering, harbour development, mine development and mechanical engineering. (25) The construction work at Richards Bay, Palaborwa and Sishen-Saldanha are examples of the skills required by large contractors today. Thus, the industry tends to become highly diversified in its leading firms, operating both in rural and urban areas and with the work in urban areas being concentrated on "high rise" projects, with some competition from smaller firms.

4.6 Technological Characteristics of the Building Industry

The relatively small size of the average building firm is an important factor to explain the low capital intensity of the
sector. In an unstable market like building, investment in equipment involves great risks because capital may lie idle for long periods of time. What is more, the nature of building work often limits the use of different types of building machinery to one job only (e.g. sophisticated shuttering). More generally, however, the main reason for the low degree of mechanisation in the industry is the need for standardisation, which is seldom met on the building site.

The main inputs in construction are labour and material. Estimates vary as to their relative importance, but it is common to attribute about 1/3 of total costs to labour and 2/3 to materials. According to the Laidlaw Commission in Great Britain (1948) the proportionate costs of materials : labour : management was in the ratio 55:36:9. There are two other inputs in building, viz, land and capital. Together they probably account for about 10% of the final cost of building work. In 1967/8 in South Africa, total value added in construction was 49.4% as against 40.4% in manufacturing.

The range of materials required by the industry is very wide. The Simon Commission in Great Britain (1948) estimated that some 250 different categories of materials were used by builders. Cement - the main component in concrete - as well as sand and stone, are the most widely used materials in the industry. Approximately four-fifths of the cost of materials used in building can be attributed to timber, bricks, iron and steel products, slat goods, cement and concrete products.

The high labour intensity of the building industry is clearly visible in Table 7, which shows how employment expansion in the construction sector between 1960 and 1973 in contrast to the manufacturing sector, was much faster than the rate of increase in production. This is partly because capital employed per worker in 1967/68 was R389 in the building sector as against R2,280 in manufacturing. Expenditure per construction worker on new assets increased from R95,30 in 1964 to R100,20 in 1970, indicating no appreciable growth. In 1970 however, rent paid on hired equipment was R15.2 million while the value of owned equipment was R99.7 million. In fact, a recent feature of the industry is the increasing tendency towards the rental of equipment, ranging
from tower cranes to small cement mixers. (Plant hire firms now number about 250 in South Africa, compared with only a handful ten years ago).

The relative cost of labour and materials differs between the subsections in the industry. In tunnelling labour and plant constitute 90% of total costs while in painting, labour cost and materials make up 48% and 33% respectively of total costs. High rise construction generally has a higher plant content than home-building because of the use of elaborate shuttering and materials-handling equipment (e.g. cranes and hoists) in the former.

Home-and high-rise construction have dissimilar technologies, with production methods for housing being largely traditional and unchanged. Brickwork, plastering, carpentry and painting still account for roughly two-thirds of the cost of house-building; bricklaying alone accounts for 30% of the cost of an average house. Even the range of materials used has largely stayed the same, except for the recent introduction of the larger cement block to replace bricks.

In high-rise construction the largest cost item is the preparation of formwork, i.e. the pouring of the concrete 'shell' of the building. This is usually done by the main contractor before the finishing work is started. The form work is usually built by skilled carpenters with timber or, more recently, with prefabricated metal shuttering. It is a horizontal tray-like structure supported by the concrete columns built on the previous 'slab' or floor. Once this has been completed, the concrete is poured to form a slab and the formwork is removed.

Given that building is more labour-intensive than manufacturing, it might be argued that production per worker would be higher in the latter sector. This, however, is not born out by the data since a higher output per worker may be due to any of a number of other factors: greater use of land or management in the production process, or better health standards. This notwithstanding, the investigation of labour productivity plays a crucial role in this study. Table 11 shows average product per worker and its increase in the manufacturing and construction sectors of the South African economy from 1946 to 1970.
The table clearly reveals a much higher labour productivity in the manufacturing sector. The reasons for this cannot be deduced from the table; it may be the higher capital intensity or the combined effect of several forces. However, such a gap was relatively consistent over the years and it actually widened in the 1960's. At present the increase in labour productivity is still lower in construction than in manufacturing.

This labour-intensity is the important link between the future growth of the industry and its projected labour requirements. Assuming the production function of the industry remains unchanged in the future, this will exacerbate the industry's labour recruitment problems, especially its White skilled labour recruitment problems, in the future. Gideon has pointed out that building (as an assembly industry) is the only industry that has not undergone major structural-technical changes, since the industrial revolution, not only in terms of approach, but also in terms of building techniques and organisational structure. (33)

The National Building Research Institute (NBRI) which is attached to the CSIR and is probably the most authoritative source in South Africa on this industry, estimates that the annual investment in building and civil engineering construction calculated
at 1970 prices will increase from R2,290 million in 1975 to R3,068 million in 1980; R4,158 million in 1985; R5,620 million in 1990; R7,548 million in 1995 and R10,169 million in 2000.\(^{(34)}\)

Thus, they expect the industry to enter a phase of unprecedented demand in which output will have to increase more than fourfold over 25 years. The high income elasticity of demand for the industry's services in the 1960's is projected to continue in the future.

Evenwel of the National Building Research Institute (NBRI) shows that if traditional construction methods are maintained the productivity of each skilled White worker in the industry would have to be in the region of R60,398 by the year 2000 if the projected building programme is to be completed. (See Table 12). The difference between the availability of skilled labour and the demand for buildings characterises the quest for industrialisation in the industry. (Table 13).

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated No. of Skilled White workers available</th>
<th>Estimated Expenditure on buildings (Rm)</th>
<th>Estimated out required per skilled White worker (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>43,841</td>
<td>654</td>
<td>14,900</td>
</tr>
<tr>
<td>1975</td>
<td>49,788</td>
<td>882</td>
<td>17,700</td>
</tr>
<tr>
<td>1980</td>
<td>53,827</td>
<td>1,188</td>
<td>22,000</td>
</tr>
<tr>
<td>1985</td>
<td>56,158</td>
<td>1,600</td>
<td>28,400</td>
</tr>
<tr>
<td>1990</td>
<td>58,913</td>
<td>2,156</td>
<td>36,500</td>
</tr>
<tr>
<td>1995</td>
<td>61,668</td>
<td>2,905</td>
<td>47,100</td>
</tr>
<tr>
<td>2000</td>
<td>64,820</td>
<td>3,915</td>
<td>60,300</td>
</tr>
</tbody>
</table>

The issues that have been dealt with above raise an important question, i.e. whether there has been any technical progress in the South African building industry which can be regarded as skilled labour-saving. The question refers specifically to skilled labour-saving devices, since we are interested in the extent to which technical progress may have lessened the dependence of the industry on White artisan labour.

Although skilled labour forms the biggest component of total costs and has been the factor in greatest shortage, it is, paradoxically, unskilled jobs that have been mechanised first in the industry, since they have been the easiest to mechanise. Traditionally unskilled tasks like carrying materials have been supplanted by hoists, tower cranes, dumper vehicles and concrete pumps which are operated by semi-skilled workers. Excavation work, which was traditionally entirely unskilled labour-intensive work has been revolutionised by the use of bulldozers and excavators.

To explain the greater progress with unskilled-labour saving technological change rather than skilled-labour saving development one should bear in mind the general labour pattern in countries which take a lead in technological innovation. For the highly industrialised countries this pattern of change is rational,
since many of them experience severe shortages of skilled labour. Naturally, this condition is not met in developing countries, of which South Africa has to be taken as an example. As is well-known, this dilemma has given rise to the debate about and development of "intermediate technologies". In South Africa the artificial shortage of Black unskilled labour in certain regions of the country has initiated strong pressure for the introduction of similar unskilled-labour saving devices, much to the detriment of employment opportunities in the present and coming decades.

Skilled jobs are much more difficult to mechanise because the building tradesman is essentially concerned with the measurement and placement of materials, in accordance with the particular details of each plan. Such tasks cannot easily be replaced with mechanisation, since the content of the work is too unpredictable. The trend in skilled jobs is towards the development of 'labour aids', that is, portable equipment to mechanise whatever can be mechanised in a skilled job. For example, high-pressure spray equipment for painting and plastering is widely used in the industry as are power trowels for the smoothing of walls and the compacting of concrete slabs. Since mechanisation implies standardisation, mechanisation is bound to be concentrated in the preparation, handling and movement of materials on a larger scale. This applies in particular to high-rise and bulk construction projects, i.e. larger building firms are more prone to use mechanised equipment than small-scale enterprises.

Significant progress has, however, been made in the replacement of skilled labour with other factors of production by the substitution of craft processes on site with the simple fixing of factory-made components. Walls, floors and other building elements are pre-cast in concrete, steel or asbestos and then assembled. This process is often referred to as "industrialised building" or alternately "prefabricated construction".

The Phelps Brown Commission of Inquiry in Great Britain discussed the implications for the labour force of the introduction of such construction methods. The main conclusion reached by the commission was that industrialised building is changing the skill mix of the building labour force by eliminating many of the
traditional on-site crafts. On the industrialised building sites far less plastering is done, which clearly has major implications for the plastering trade; proportionately more carpenters are employed than on traditional sites, but their work shifts in emphasis from operations involving on-site fabrication and assembly towards work involving large prefabricated components; fewer bricklayers are required, and work is transferred from site to factory.

Evenwel views the change as follows: "European experience indicates that the demand for specialist labourers increases in direct proportion to the degree of industrialisation applied. The skill of these specialist labourers is certainly below that of traditional craftsmen, but the actual degree of specialisation has resulted in the important upgrading of the so-called unskilled worker. (36)

To give but one example, the head of Roberts Industrialised Building Company (RIBCO), the industrialised building arm of the Roberts Construction Company, has said that of the 1800 production workers employed by RIBCO in 1976 no more than 15 were skilled artisans. (37)

Partial or complete prefabrication has meant the introduction of building materials that reduced the skilled labour content of wall construction, e.g. bricks for walls have been replaced by glass and prefabricated cement panelling. Timber has been replaced by steel and aluminium for windows and door frames which are generally delivered ready for installation on site. Lately walls have been constructed by means of interlocking concrete blocks requiring operative-type labour with minimum supervision. Table 14 shows the change in the breakdown of materials used by the building and contracting (buildings) division of the construction sector between 1963/64 and 1969/70, and bears out the general conclusions of the paragraph above. The categories of iron and steel, wood products and glass are of particular significance.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand - all kinds</td>
<td>4.9</td>
<td>5.5</td>
<td>+ 12</td>
</tr>
<tr>
<td>Stone - crushed and other</td>
<td>7.2</td>
<td>9.4</td>
<td>+ 29</td>
</tr>
<tr>
<td>Building lime</td>
<td>1.1</td>
<td>0.86</td>
<td>- 26</td>
</tr>
<tr>
<td>Cement</td>
<td>13.7</td>
<td>18.4</td>
<td>+ 33</td>
</tr>
<tr>
<td>Bricks</td>
<td>16.9</td>
<td>18.8</td>
<td>+ 11</td>
</tr>
<tr>
<td>Tiles - all kinds</td>
<td>6.1</td>
<td>7.1</td>
<td>+ 15</td>
</tr>
<tr>
<td>Iron and Steel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Sheets</td>
<td>4.1</td>
<td>5.7</td>
<td>+ 40</td>
</tr>
<tr>
<td>2) Other products</td>
<td>18.5</td>
<td>26.5</td>
<td>+ 43</td>
</tr>
<tr>
<td>Wood products</td>
<td>22.4</td>
<td>20.1</td>
<td>- 11</td>
</tr>
<tr>
<td>Glass</td>
<td>2.6</td>
<td>4.3</td>
<td>+ 65</td>
</tr>
<tr>
<td>Paint</td>
<td>3.4</td>
<td>3.8</td>
<td>+ 11</td>
</tr>
<tr>
<td>Other products</td>
<td>16.1</td>
<td>17.6</td>
<td>+ 9</td>
</tr>
<tr>
<td>Total</td>
<td>R120.4</td>
<td>R143.3</td>
<td>+ 19</td>
</tr>
</tbody>
</table>

* Since the Census is based on a sample survey, it tends to underestimate the total value of materials used.


In the light of these tremendous skilled labour-saving possibilities of industrialised building, it is important to assess their actual use in South Africa. We can distinguish between the past 16 years, that is roughly the period covered by the study, and the future prospects. There are strong indications that in the past 16 years these techniques have not been adopted widely in South Africa, e.g. according to the managing director of RIBCO,
there are only two other building firms in South Africa doing large scale industrialised building, i.e. L.T.A. and Bester Homes. (38) He also mentioned that RIBCO contributed only 5% to the 1976 group turnover. (39)

More indirect evidence is the fact that the trade unions have not yet seriously complained about the introduction of these systems, neither have they arranged to regulate wages for semiskilled work on industrialised building sites. Thus, they do not regard the encroachment of new methods as harmful to their employment. It is feasible that the shortage of White artisans (brought about by supply factors) and the rapid expansion of the industry over this period probably meant that the introduction of these systems had little impact on the amount of work available to union members. In fact, it can be argued that in the past 16 years, the introduction of these techniques did not solve the skilled labour recruitment problems of the industry, which mean that it also did not threaten the strong bargaining position of skilled (White) labour.

The scope for the application of these industrialised systems in the future are very good. In particular they have shown to be highly flexible, being used to build warehouses, offices, flats, schools, factories and houses. RIBCO, the industrialised building subsidiary of Murray and Roberts founded in 1969, had a growth in real turnover adjusted for building cost increases from 100 in 1970 to 1103 in 1976. (40)

Although direct cost comparisons between industrialised and conventional building methods are as yet inconclusive, local studies indicate slower cost increases in the former. (41) Industrialised building also appeals to clients and builders because it cuts down on construction time (in some cases by as much as half) which makes direct cost comparisons irrelevant. This is particularly so if the work is being done in boom conditions when firms are under tremendous pressure to complete contracts. In addition to these two aspects industrialised building methods also have an advantage with respect to quality control.
4.7 Conclusion

This section has presented macro-data to put the construction sector into its proper perspective as far as employment, contribution to GDP, investment and cyclical patterns of growth are concerned. The sector is relatively small compared to manufacturing and the tertiary sector, but it is in itself of substantial size with a total present employment of well over 400,000.

The data has shown that much of all building activity is concentrated in the metropolitan areas, even though major civil engineering projects have increased the relative significance of the rural sector. By concentrating on the Witwatersrand and Cape Town areas, this study does therefore capture the situation in the metropolitan areas and conclusions can thus be regarded as significant in the overall sense.

Apart from these more general conclusions, certain other conclusions emerge which are critically important in explaining the White labour shortages which developed in the building industry in the 1960's. Firstly, great stress has been laid on the fact that the construction sector had an extremely high rate of growth in the period under consideration in this study, real output almost trebling between 1960 and 1972. Secondly, the labour-intensity and also the skilled labour-intensity of the industry has been changing, even though unskilled-labour intensive industrialised building techniques were not yet widely in use in the period in question. This has meant that the industry has had to grow by increasing its labour inputs relatively faster than its inputs of capital equipment. These factors must be considered as an important setting for the stresses that developed in the Witwatersrand, as discussed in Section 5. Finally, the section has suggested that South Africa may be at the brink of major breakthroughs in the wider application of unskilled as well as skilled labour-saving devices, which will have a major impact on labour utilisation and the relative bargaining position of the (un)organised labour group.
91.

FOOTNOTES : SECTION 4

(3) Ibid., p.177.
(4) Ibid.
(5) Figures provided by the Stellenbosch University Bureau for Economic Research.
(7) Ibid.
(8) Figures provided by the Stellenbosch University Bureau for Economic Research.
(9) Department of Statistics, op.cit., p.7.3.
(10) Ibid.
(11) Figures provided by the Stellenbosch University Bureau for Economic Research.
(13) Ibid.
(15) Mercabank, Focus on Key Economic Issues, Money and Banking, p.2.
(17) Figures provided by the Stellenbosch University Bureau for Economic Research.
(18) Department of Statistics, op.cit., p.7.3.
(20) Ibid.
(21) Ibid.
(22) Ibid.


(26) H. Richardson and D. Aldcroft, Building in the British Economy between the Wars, ch.5.


(28) H. Richardson and D. Aldcroft, op.cit., ch.6.

(29) Ibid.


Department of Statistics, Census of Manufacturing 1967/68, p.48 and p.60.

(31) Department of Statistics, S.A. Statistics 1974, p.7.34


(33) S. Gideon, Space, Time and Architecture, pp.97 - 211.


(38) Ibid., p.70.

(39) Ibid., p.69.

(40) Ibid.

(41) Ibid, p.70.
SECTION FIVE

THE LABOUR MARKET IN THE
WITWATERSRAND BUILDING INDUSTRY
This section presents a detailed analysis of the conditions in the Witwatersrand building industry labour market from 1960 onwards. It builds on the previous section by discussing the implications for the labour market of the rapid rate of growth in the industry over the period as well as its inability in the short-term to gainfully use the industrialised system of building. Its main aim is to show that the two job colour bars existing, i.e. job reservation Determination No. 6 and the Bantu Building Workers' Act, which made Whites the only legally-approved source of artisan labour to the industry, failed to stand the test of reality. It also purports to describe the irrevocable pressure that built up to reclassify certain jobs. Thus the analysis in this section may be considered a prelude to the discussion in Section 6.

In Section 5.1 the nature of the demand for labour in the industry is discussed. It is shown that the present character of the labour force is a direct response to the cyclical nature of demand in the product market. Section 5.2 deals almost exclusively with the supply of White labour to the industry, particularly with respect to apprenticeships. Section 5.3 discusses the stresses that arose in the labour market in the 1960's and 1970's and the contraventions in legislation resulting from employer adjustments to the shortages of artisan labour.

5.1 The Demand for Labour

5.1.1 White Labour

Table 15 shows annual employment of artisans, semi and unskilled labour in the Witwatersrand building industry from 1960 to 1973. For purposes of comparison, the index of employment of the total private construction labour force is shown in column (3).
Table 15 shows substantial fluctuation in the employment of labour by the industry. The table shows employment rather than the demand for labour. Actual demand could be greater but not less than total employment. Thus, the cyclical nature of demand in the product market as discussed in Section 3, can be seen as reflected in the demand for labour.

The pattern of employment that emerges is one of extreme cyclical fluctuation. The industry has experienced three protracted slack periods. From 1960 to 1962 the employment of artisans halved and it took a further two years for it to return to the level it had reached in 1960. This means that in 1962 approximately 3 500 artisans who worked in the industry in 1960 had found alternative employment or were unemployed. Between 1962 and 1966, employment
increased steadily and by 1966 was 11 500, almost twice as high as it was in 1962. It then dropped to 10 100 in 1968, but increased again to 13 200 in 1971. Between 1971 and 1973 artisan employment decreased by 2 900 — a drop of 21.9 percent over the two years. As we can see from Table 15, the trend in semiskilled and unskilled employment was almost exactly the same as that of artisans over the period.

Unfortunately neither the building trade unions nor the Department of Labour offices in Johannesburg have kept figures on unemployment registration of building tradesmen. These figures would in any case be too low since many unemployed artisans find work on their own through the "grapevine" rather than to register with their unions or the Department of Labour. If an artisan finds temporary work in another industry, he will not register as unemployed in the building industry either. However, it is still possible to get some idea of the amount and duration of unemployment (i.e. the inability of an artisan to find work in the Witwatersrand building industry) by comparing the numbers employed when labour demand is at a peak and at the lowest point in any downturn. Accordingly we find that 35.6 percent of the artisans employed in 1960 could not find employment in the Witwatersrand building industry in 1962, and that the employment level of 1960 was only reached again in 1964. Further, 12 percent of those artisans employed in the industry in 1966 could not find employment there in 1968 (the 1966 level of employment was only reached again in 1969) and 21.9 percent of the artisans employed by the industry in 1971 could not find similar employment in 1973.

We also find that the average number of weeks worked annually by artisans is low. The 12 387 artisans who worked in the industry in 1974 realised on average only 35.4 working weeks, painters realising the lowest number of weeks (31.9) followed by bricklayers (33.0), plumbers (36.0), carpenters and joiners (36.5) and plasterers (37.5). (1) (Please read footnote). A survey of employment conditions in the industry between 1955 and 1961 showed that only 27 percent of artisans worked what could be considered a full year (40 - 49 weeks), whilst 30.9 percent worked between 25 - 40 weeks and 14 percent worked under 10 weeks. (2) The number of weeks worked seems to vary according to the level of total employment of the in-
dustry: Between 1954/55 and 1956/57 (when the value of buildings completed in the Transvaal and Orange Free State fell from £55.2 million to £42.6 million) average man-weeks worked fell from 31.1 to 27.4. This figure then rose again to 32.4 in 1960. In 1961 the average man-weeks worked had dropped back to 27.6.(3)

The low number of weeks worked by building tradesmen is attributable to two other causes of employment instability in the industry, viz. unstable demand at the level of the firm and seasonal factors. At the level of the firm, "stops" and "starts" in a contractor's workload seldom correlate. The instability of employment associated with the temporary nature of work on a given site is related to, but distinct from, fluctuations in total employment, and occur when the completion of work at a few large sites is not offset by starts elsewhere. On the completion of a contract, the builder is in fact faced with two alternatives, i.e. either to lay off his workforce and engage new workers when there is work on hand again, or to carry his labour force until there are new contracts. With regard to seasonal fluctuations in employment, we find that the monthly value of buildings completed by the private sector in the Witwatersrand metropolitan area from January to December 1973 fluctuated widely, as revealed in the list following (in R millions): 11, 09, 13, 57, 16, 67, 15, 13, 13, 93, 23, 89, 17, 62, 17, 13, 15, 53, 17, 96, 17, 36 and 14, 52.(4)

Weather conditions also have a significant effect upon the regularity of work operations in the building industry. This seasonal factor in the demand for labour must operate to reduce demand in wetter seasons (being the summer months on the Witwatersrand) and get contractors to shift new contracts to the winter months. In passing we may simply note that out of a total of 93 rainy days in Johannesburg in 1973, the monthly average from October to March was 12.6, but only 3.3 from April to September.(5)

The discrete nature of building projects and the seasonal variability of output in the industry mean that hiring and lay-offs take place much more frequently in building than in other industries. Building firms recognise the need for greater flexibility in lay-offs than in other industries. Workers can be laid off at relatively short notice by employers - often a matter of
hours or days - although slightly longer notice periods may be given to long-service employees. The minimum notice period in the Building and Monumental Masonry Industries (Transvaal) Non-Artisans Agreement is two days. The average annual labour turnover in construction in 1972 was 7,3 White persons engaged per 100 Whites employed in 1972, as opposed to 4,6 in manufacturing. Similarly there were 7,4 discharges per 100 White employees made in construction in 1972 as opposed to 4,6 in manufacturing. From 1971 to 1974 the comparative figures (engagements shown first) for construction were 6,8 and 7,2, 6,5 and 6,2 and 7,8 and 7,2 respectively.

We can already see that the average building tradesman faces a highly insecure existence. Employment fluctuations may either result in unemployment or in the movement of tradesmen to other industries. The high seasonal and cyclical fluctuations in building work are thought to account for the short-term movement of tradesmen between building and other industries. Of particular significance is the movement to skilled occupations in other industries and back, depending on the state of employment in building. Table 16 shows the distribution of unemployed time. An artisan who has not purchased a stamp from the industrial council in any one week is considered unemployed by the building industry for that week. The table is based on a sample of artisans who did not work a full year for the Witwatersrand building industry in 1963. It is drawn from a manpower study conducted by the C.S.I.R. in this period. The average number of weeks worked by the sample was 29,9.

Table 16: Distribution of Unemployed Time

<table>
<thead>
<tr>
<th>Reason why no stamps received</th>
<th>% of all weeks in which no stamps received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked for an organisation outside the building industry</td>
<td>27,3</td>
</tr>
<tr>
<td>Sick or injured</td>
<td>21,9</td>
</tr>
<tr>
<td>Unemployed</td>
<td>16,8</td>
</tr>
<tr>
<td>Self-employed</td>
<td>12,8</td>
</tr>
<tr>
<td>Holiday/unpaid leave</td>
<td>6,9</td>
</tr>
<tr>
<td>Worked outside the jurisdiction of the building industrial council (Tv1)</td>
<td>3,7</td>
</tr>
<tr>
<td>Reasons unspecified</td>
<td>10,6</td>
</tr>
<tr>
<td></td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: National Development Fund for the Building Industry, Studies of Manpower in the Building Industry, p.82.
According to the study, 36.4 percent of the artisans in the sample had originally left the industry because there was no more work. Another 27.6 percent had left the industry as a result of sickness or an industrial accident. We find from the table that 27.3 percent of the "unemployed" time spent was spent working for organisations outside the building industry. The areas of "outside" employment are not limited to any occupation or industry and include work on the railways and mines, in factories and in Government service. Fully 44.0 percent of the tradesmen who worked for other organisations were engaged in some entirely different occupation.

The average artisan in the sample was unemployed (in the true meaning of the word) for 16.8 percent of every working year (8 weeks, excluding the holiday period). This unemployment is probably linked to the resistance of most artisans to work away from home. No major firm operates on a nation-wide basis. The general secretary of the Industrial Council said that even within the Witwatersrand region, some tradesmen would only work on projects within the vicinity of the suburbs in which they lived. This is borne out by the results of another manpower study undertaken by the C.S.I.R. on behalf of the building industry. The study found that in an eight-year period from 1955/1956 - 1961/1962, 73 percent of the artisans from a sample had not changed their centre of employment once, whilst only 14 percent had moved from another province.

The other category in the table accounting for a high number of man-weeks lost to the industry is "sick and injured". Injury in particular is an important occupational hazard in building. This is discussed in Section 5.2.1.2.

The sharp contraction in building from 1961 to 1963 brought about a steep decline in artisan employment and a permanent loss of artisans to other sectors. BIPSA estimated that out of a skilled labour force of 15 000 in 1960 on the Witwatersrand and in Pretoria, approximately 5 000 had abandoned their trades permanently by 1964. Research carried out in 1961, showed that 5 200 of the 21 320 men on the records of the Witwatersrand building industrial council (including Pretoria) in that year had no working record with the industry for two years or more. This pattern of events appears to have been repeated more recently. We would expect that the longer the period of unemployment, the more likely artisans
are to leave the industry permanently. Put differently, the industry is more likely to lose artisans permanently during cyclical rather than during seasonal fluctuations. Many tradesmen have been forced to leave the building sector during 1976, according to the general secretary of the Amalgamated Union of Building Trade Workers. (14)

The ability of building tradesmen in the past to find work in other sectors of the economy has not detracted from the desire of the unions to stabilize or increase the number of jobs available for local artisans. In February 1976 the general secretary of the Blankebouwerkersvakbond predicted that because of the slump in building activities the Government was considering denying work permits to refugees from Mocambique in order to protect local artisans. (15)

The loss of 5000 artisans to the Witwatersrand industry between 1961 and 1963 was an important cause of the artisan shortage that developed afterwards. There is little doubt that this pattern has been repeated since then, although the number of retrenchments is still smaller. This point will be discussed in the context of White labour shortages in Section 5.2.1.

A very real reason for the building unions' opposition to job fragmentation is that, handing over work to African semiskilled workers to cope with artisan labour shortages during a boom, has meant less work to go round when employment opportunities shrink. Since the building unions are craft and not industrial unions, their strategy is to oppose any reclassification of artisan work if this means less work to go round during a slump. Major fragmentation agreements in the Witwatersrand industry have been made on the understanding that these newly-created semiskilled jobs could be reclassified as "artisan work", as a cushion against shrinking employment opportunities for artisans. This will be referred to in Section 6.4.3.1.

5.1.2 African Labour

The figures in Table 15 show that there was a 50 percent increase in African employment in the industry between 1960 and 1973. This figure underestimates the de facto growth in African employment if account is taken of African workers illegally
employed in the city.

Although labour bureau are still important instruments in effecting influx control policy, they have not been able to stem the flow of illegal work-seekers into the cities. A look at pass law contraventions gives a clear indication of this. Wilson notes that in 1964 there were 373,000 known contraventions, compared to 479,000 in 1966, 693,700 in 1968, 632,100 in 1969 and 621,400 in 1970. (16) Since the promulgation of the Bantu Labour Regulations (Bantu Areas) of 1968 in terms of which an African may not leave his homeland unless he is registered at the tribal labour office, there has been a slight decrease in the number of offences, but it is still extraordinarily high.

We also have to consider the special role played by the construction sector in developing countries in the recruitment of illegal workseekers. Howe, in his study of urban employment in China, concludes:

"...we find that there was an acute contradiction in construction labour management arising from the conflict between short-run cost objectives on the one hand, and employment and population control objectives on the other. For the pressure to minimise costs caused enterprises to respond to fluctuations by maintaining a high labour turnover and by having a high proportion of temporary workers in their work gangs. Thus the ideal construction worker was a peasant with seasonal availability and secondary sources of income (from agriculture). The effect of this was to make the construction industry a major channel for illicit migrants to enter the urban labour force ..." (17)

The similarity with the results of this study are striking. The following picture emerges from published information obtained through discussions with builders and from the general secretary of the industrial council. In building operations unskilled labour requirements vary considerably as the job progresses. Since the skill required for unskilled work is low, the unskilled gang will do many different types of jobs and will be moved to different types of work as the stages of operations dictate. Unskilled labour requirements vary as the job progresses, for example, excavation and concreting are unskilled, labour-intensive jobs whilst finishing work is normally skilled-labour intensive. The essential feature of such a system is the requirement that labour be readily available
when needed (i.e. that it can be hired directly on site for a few days or weeks) and quickly disposed of depending on shifts in seasonal demand and the phase of the job. The labour force, in other words, must be able to be readily expanded and contracted to supplement a stable core of permanent workers. There must also be a body of workers prepared to work by these rules.

Using the same reasoning, the industry is less well suited to accommodate contract labour. Since the actual cost of labour recruitment is high and is analogous to fixed costs, it serves no purpose if the contract has to be broken by the employer before the conventional one year period is up, to be started all over again (although one firm pays its workers a subsistence allowance instead of breaking the contract). As the time span over which labour is required decreases, the fixed costs to a builder of using contract labourers will rise. This argument does not apply to the firms in the industry with a continuous workload or those which can move labour from one site to another.

The supply of hostel accommodation also makes it difficult to fulfil labour requirements "legally" (i.e. by using statutory methods of recruiting migrant workers). Some firms are unable to get quotas for hostel beds sufficient for their labour force. One of the large construction companies, at its own expense, has built a hostel in Soweto for its African workers. Another firm studied had 600 African manual workers, but a bed quota of only 300. This accentuates the practice of illegal hiring, and it also leads to the questionable practice of workers living secretly on building sites.

Another important drawback of the contract labour system for the builder is that labour is not obtainable at short notice. This is important for the industry as it requires its labour at short notice. The legal procedure for an African to be placed in some urban-centred work is as follows: The employer informs the district labour bureau of a vacancy; the applicant will be told he will have to wait for a period to see if the vacancy can be filled by a local workseeker; the bureau in turn looks to those Africans who are registered as unemployed at the bureau. If a suitable African is found, the employer and the African must wait for three to six weeks for permission to come through, whereupon the African is sent
to the employer. At the end of builders' holidays delays are even longer. The law requires that medical tests be conducted on contract workers before they are employed. Since there are too few doctors in the homelands some firms have to spend up to six weeks doing their own testing at the start of each year. As noted, the employers must also specify exactly where their employees will be housed before permission is granted.

In practice the procedure is different in many building firms. Many workers come to the city without pre-arranged employment, and only after finding employment are they registered at the labour bureau concerned. A chief culprit in this regard is the employer who, in order to take advantage of the lower wage demands of the illegal workseeker, employs them and then only later, if ever, registers them.

It would appear that there is a meshing of requirements between employers and illegal workseekers. Builders experience difficulties caused by influx control in regard to the supply of African labour. They employ a large proportion of casual labour varying to the work in hand at any given time and labour bureaux can frequently not meet the demand. Furthermore if this is discovered, it is the African and not the employer who is prosecuted (although this will depend to some extent on how the contravention is discovered). The employer has no responsibility for finding sleeping accommodation nor any of the other costs of recruitment, including rail fares. Illegal workseekers on the other hand can be hired on the building site at little or no cost. This was illustrated by one employer who chose from three or four workers coming round every day and a second who relied on his staff to recruit workers for him according to his daily requirements at a particular spot in the townships (apparently widely known for this purpose).

To the illegal workseeker who knows that he can usually get short term unskilled work in the industry with a chance of being registered later, and that he stands a lesser chance of being caught on a building site than in a factory, the building industry is an important channel for entry to the urban labour force.

It would appear that illicit hiring accelerated to such an extent that the inspectorate though under considerable pressure,
cannot effectively control the practice by regular checks and raids. In 1967 it was estimated for the Witwatersrand that up to 50 percent of African workers on building sites were being employed illegally.

Unregistered workers probably bear the brunt of retrenchments in the industry. They will not appear as official retrenchments since they work without official contracts and therefore do not appear in the wage records. Conversely, when they are engaged they work without any formal contract. The effect of this is to underestimate the swings that occur in African employment as revealed in Table 15. In 1972 the number of engagements and discharges of African workers (per 100 Africans employed) was 4.7 and 4.6 respectively. The same figures for the manufacturing sector were 4.5 and 4.2. This could mean either that African labour turnover in manufacturing is about the same as in construction or, rather, that a substantial number of engagements and discharges are not recorded.

By all accounts illegal workers are doing semiskilled work in the industry. However, given the risks of employing an illegal worker on skilled work, a weeding-out process ensues once the worker has been hired: those that are proficient are given semiskilled work and then registered. Whilst the builder has nothing to lose if the worker is unskilled, the investment in skills can be quite high (e.g. crane drivers) and it is unlikely that a builder will risk having a large proportion of his semiskilled workers unregistered. For the same reason, builders often carry a force of key operatives and semiskilled workers during a slump.

5.1.3. Coloured Labour

In the period studied there have always been a small number of Coloured artisans in the industry. This number has remained small and has not fluctuated much. In 1971 it was estimated that only 4.2 percent of all artisans in the Transvaal were Coloured persons. Owing to job reservation Determination No. 6, this number has always been smaller than it would have been without these restrictions.

Employers, however, won concessions with respect to the use of Coloured labour in 1971 when employers were granted certain ex-
emptions from Determination No. 6. Employers in the Transvaal and the Orange Free State are currently (from mid-1975) free to employ Coloured labour on any skilled work but no long-term trend in demand has yet emerged because there is currently a shortage of Coloured artisans in the area. The total Coloured population in the Transvaal is rather small and there are other impediments, e.g. housing. The utilisation of Coloured labour in the industry is discussed in detail in Section 6.3.

5.2 The Supply of Labour

5.2.1 White Labour

At the outset it must be clearly stated that we are looking only at shortages of White manual labour (i.e. artisans and foremen). It is the supply of White manual workers that is the relevant variable effecting Black occupational advancement. The building industry employs Whites at two levels: on manual work and at the management-mid management level. The latter category includes quantity surveyors, draughtsmen, etc. The needs of the industry at management and mid-management level have always been effectively catered for by White candidates. Since the introduction in the industry of building science, construction supervisor and general foreman courses (the latter two part-time at technical colleges) there has been no need to rely on artisans to fulfil these functions.

5.2.1.1 Apprenticeship Intake

The apprenticeship system is the most important channel for entry to skilled trades in the industry. There are statistics available on the estimated apprenticeship requirements of the industry. A statistical manpower study conducted by the industry, estimated that between 1964 and 1980 the demand for skilled building labour on the Witwatersrand and in Pretoria would double, necessitating an annual average increase in artisan manpower of approximately 700 man years over the period. This can be taken to mean that the industry needs to indenture roughly the same number of first-year apprentices each year to satisfy its skilled labour requirements. Table 17 shows the tremendous shortfall in first-year apprentices indentured in the Witwatersrand area between 1951 and 1972.
Table 17: First-Year Apprentices on the Witwatersrand 1951-1972

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Year</th>
<th>Number</th>
<th>Year</th>
<th>Number</th>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>648</td>
<td>1957</td>
<td>413</td>
<td>1962</td>
<td>59</td>
<td>1967</td>
<td>64</td>
</tr>
<tr>
<td>1952</td>
<td>618</td>
<td>1958</td>
<td>386</td>
<td>1963</td>
<td>69</td>
<td>1968</td>
<td>72</td>
</tr>
<tr>
<td>1953</td>
<td>570</td>
<td>1959</td>
<td>358</td>
<td>1964</td>
<td>107</td>
<td>1969</td>
<td>104</td>
</tr>
<tr>
<td>1954</td>
<td>610</td>
<td>1960</td>
<td>400</td>
<td>1965</td>
<td>107</td>
<td>1970</td>
<td>91</td>
</tr>
<tr>
<td>1956</td>
<td>280</td>
<td></td>
<td></td>
<td>1972</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


From at least as far back as 1951 the industry has been unable to meet its skilled labour requirements through the normal apprenticeship channels. Figures for first-year apprentices probably overestimate by a substantial amount the number that remain in the industry. The usual wastage rate among first-year apprentices is roughly one quarter.\(^{(25)}\) Furthermore, the apprenticeship requirements shown above were calculated in man years, but we have seen that the average building artisan works roughly 35 weeks annually. Included among first-year building apprentices are those who will eventually work in all other industries employing building tradesmen. It has been traditional practice to register all building trade apprenticeships in the building industry. Thus we find private construction in this country employs only 70 percent of all building trade artisans.\(^{(26)}\) Civil engineering in 1970 employed roughly 4,500 out of the total skilled construction labour force of 45,000,\(^{(27)}\) thus roughly another 10 percent of apprentices that qualify will leave the industry.

It would appear that the poor apprenticeship intake in the building industry is a result of the relative unpopularity of the building trades among prospective apprentices as well as the general White manpower shortage in the economy. In 1961 the ratio of White apprentices to artisans in building and contracting was
lower than in three other major industries (metal and engineering, motor and furniture). More recent evidence comes from the Department of Labour's Manpower surveys. The statistics in Table 18 are drawn from these reports and refer to White artisans and apprentices in designated trades in all industries throughout the country. The table shows three different time periods and three different indicators of labour shortage: vacancies for artisans as a percentage of the artisan labour force in the building trades and in all non-building trades; the number of apprentices per artisan are shown in the same way, and the percentage of apprenticeship posts unfilled.

Table 18: Labour Shortages in Designated Trades 1969-1973

<table>
<thead>
<tr>
<th></th>
<th>Artisan vacancies as a % of all artisans</th>
<th>Apprentices per Artisan</th>
<th>% of Apprenticeship posts unfilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manpower Survey No.8(30/4/69)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>12.88</td>
<td>0.09</td>
<td>13.0</td>
</tr>
<tr>
<td>All trades</td>
<td>8.83</td>
<td>0.23</td>
<td>5.37</td>
</tr>
<tr>
<td>Manpower Survey No.9(30/4/71)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>16.95</td>
<td>0.1</td>
<td>22.74</td>
</tr>
<tr>
<td>All trades</td>
<td>10.22</td>
<td>0.22</td>
<td>9.6</td>
</tr>
<tr>
<td>Manpower Survey No.10(27/4/73)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>9.34</td>
<td>0.1</td>
<td>9.18</td>
</tr>
<tr>
<td>All trades</td>
<td>7.18</td>
<td>0.2</td>
<td>7.59</td>
</tr>
</tbody>
</table>

5.2.1.2 Occupational Preferences

The unstable employment conditions in the industry deter many boys from becoming apprenticed in a building trade. This was cited in one South African study of attitudes towards careers in the industry as the major cause of dissatisfaction among potential recruits. There is no permanency in the sense that artisans
never know how long a job will last. The possibility of unemployment is very real for every building tradesman, irrespective of the quality of his work or the tenure of his service.

Working conditions in the industry are difficult. The usual characteristics of building sites - working at great heights, movement of heavy materials, temporary installations like gangways and a large complement of unskilled workers - each have an element of danger. In 1969 the construction sector - after agriculture and the iron and steel industry - had the third highest number of industrial accidents in the country, costing the industry some R2.05 million. Construction workers made up 5.6 percent of the total labour force in that year, but construction accidents accounted for 16.4 percent of all fatal and 9.1 percent of all permanently disabling industrial accidents.

The variability in location of building sites requires that workers and managers be highly mobile and rural projects require that the workforce maintain temporary living quarters away from home. Recreation facilities are closely conditioned by the temporary nature of jobs and the relatively small size of the units operating in the industry. It is consequently difficult to provide welfare conditions comparable to those in factory employment. Employers are generally obligated to provide e.g. changerooms where there are more than 10 employees on a job. Facilities such as messrooms need only be provided on large sites.

The weather also poses a variety of problems to workers and managers, at least for exposed operations. There is, for artisans, loss of time due to bad weather. A distinctive group of rules provide some degree of insurance against full loss of wages attributable to periods of unfavourable weather conditions, over and above the compensation normally for loss of wages arising from unemployment.

The most serious shortages of apprentices have been in bricklaying, plastering and painting. These trades require hard physical labour and most parts of these jobs are arduous and repetitive, e.g. the application of plaster to walls. Employers also aggravate the status fears of White workers in these trades
by claiming in support of arguments that Black workers should be trained for these posts that the work is less skilled than that in other building trades. The "wet" trades, plastering and bricklaying, show proportionally lower recruitment and higher wastage rates than the technical trades of plumbing, electrical wireman and joinery. (32) In 1966 only seven White bricklaying and plastering apprentices were indentured in the whole of the Transvaal. (33) In the period 1967-1969, only thirty-seven new apprentices were indentured in these trades in the province. (34) This is despite the fact that bricklayers and plasterers constitute about 40 percent of all tradesmen in the industry. (35) It has been shown that 45 percent of all White apprentices registered in building trades in recent years have been indentured in the trade of electrical wireman. (35a)

5.2.1.3 Inflow of Artisans through other Channels

One important source of building artisans has been immigration. It was estimated, for instance, that in 1973 50 percent of artisans on the Witwatersrand were immigrants from the United Kingdom, Portugal, Mocambique and Angola. (36) It is reported that 20 490 building trade immigrants entered the country between July 1963 and June 1973 although a number took up employment outside the building industry. (37) Under conditions of White artisan labour shortage, temporary work permits have also been more freely granted to foreign artisans. A number of these workers have however only come because of political or economic factors in their own country and their entry or exit from the industry cannot be predicted with any accuracy. It is, for example, estimated that 599 immigrant artisans left the Witwatersrand industry permanently in the boom period September 1970 - June 1972. (38)

Some of these workers have been recruited by local organizations. Individual major contractors in the Witwatersrand area formed a consortium (in the early 1970's) which employed a private immigration recruitment organisation to bring in artisans as permanent immigrants. These workers were initially for their own use but in fact benefited the industry at large.

During the 1960's the Building Industries Federation
South Africa established two funds - financed by levies on employers - solely for the purpose of recruiting labour for the industry. The Building Industries Recruitment and Training Fund (BIRTF) confines its activities to the training and recruitment of labour up to craft level. The National Development Fund for the Building Industry concentrates on recruitment at university and advanced technical levels. BIRTF advertises extensively overseas for artisans and has on five occasions - twice to the Netherlands and three times to the United Kingdom - deputed and financed a representative to provide information to prospective building trade immigrants. It is estimated that this programme has cost BIFSA almost R80 000, but only 891 artisans were brought into the country under the BIFSA scheme between September 1970 and June 1972. 

BIFSA has also sought to train persons (other than minors) who cannot be enrolled under the Apprenticeship Act, to be artisans. In July 1971 it established a special centre in the Transvaal to train Whites over 21 years of age as bricklayers, plasterers and carpenters. The scheme was later extended to persons at least 19 years of age. This necessitated the Minister of Labour exempting the industry from the provision in the Apprenticeship Act regarding the maximum age of apprentices. This was the first time that the Department of Labour had given positive recognition to the problems experienced by the building industry, in competition with other avenues of employment, in the recruitment of apprentices in these three trades.

The present training scheme is 18 months and is divided into two phases: fourteen weeks intensive formal training at the centre in Baragwanath near Johannesburg and the balance of the 18 month period in the service of an employer. The salaries of candidates who enrol for initial training at the centre are paid by the Building Industries Recruitment and Training Fund. In the past the industrial council conducted a simple test after which the learner is accorded full artisan status.

When viewed as a measure to compensate for poor apprenticeship intake through regular channels, the scheme has had little success. Between July 1971 and December 1974 only 349 learners qualified as artisans. This was composed of 121 carpenters (including
42 minors), 92 plasterers (29 minors) and 136 bricklayers (36 minors). Up to the end of 1973, there were 1,002 applicants of whom only 318 were acceptable in terms of aptitude and motivation. By the very nature of the scheme, it has attracted many applicants who are unsuitable for regular employment. According to reports from the Durban, Bloemfontein and Witwatersrand Master Builders' Associations at the end of 1973, only 57 percent of the learners placed in employment in these areas were still engaged in the industry. It is estimated that the cost to the industry per qualified candidate, including the wastage factor referred to, has been in excess of R1,000.

This method of circumventing the Apprenticeship Act in order to increase the number of Whites taking up employment in the building industry is not a totally new expedient. COTT (Central Organisation of Technical Training) for example came into existence after the war. Its aim was to start the training of ex-volunteers with special emphasis given to training in building trades due to the accommodation shortage during this period and the low number of building apprentices who had been indentured during the war. One aim was to provide intensive training, both practical and theoretical, covering a short period, which would then fit into the general framework of apprenticeship. The training period for bricklayers, plasterers and painters was 17 weeks, whilst that for carpenters and plumbers was 19 weeks. The original intention of the scheme was to train 5,000 ex-volunteers.

5.3.1.4 Adjustments in Hiring Standards

The schemes described above may also be interpreted as a move on the part of employers, trade unions and the Government to recognise as artisans those who have undergone training inferior in quality to that provided through the normal apprenticeship channels. Important changes in this direction have also been made in the conditions of apprenticeship in the industry. In 1970 the length of apprenticeship in all building trades was reduced from 5 to 4 years. The only exception was the trade of electrical wireman in which the period of apprenticeship remains 5 years.
Secondly, it appears that many prospective White apprentices without the minimum educational qualification required by the Act for entry to a trade have nevertheless been indentured. An analysis of the education standards of the 1,134 apprentices under contract in Durban at the end of 1972 revealed that applications for exemptions from the minimum education qualification had to be obtained for 45 percent of the 199 White apprentices employed in the industry at the time. On the other hand, all but 5 of the 1,015 Coloured and Asian apprentices in the industry at the time had attained the minimum education qualification of Std. 7.

In attempts to comply with job reservation restrictions, employers have been forced to employ White artisans of poor quality. For instance between 1954 and 1961 it has been estimated that only 28 percent of all White building apprentices in the country qualified fully, i.e. having passed their trade tests, the rest having become artisans automatically after serving 5 years' apprenticeship. This figure was estimated to be 34.1 percent (all races) in 1974. This means many artisans have a very poor knowledge of the theoretical aspects of their trade.

Possibly the most interesting question is the extent to which the trade unions have sought to operate a policy of insisting on apprenticeships as a precondition for practicing as an artisan in the trade. In discussions with officials at the industrial council, it was found to be not uncommon for a man to work as a tradesman without having completed his apprenticeship. This occurs particularly in bricklaying, tiling and plastering, but above all in painting. This is known as the 'back door' entrance to the trades: workers who have acquired skills - sometimes those who move from the country to town - may be accepted by the union and given a ticket. A recent study has argued that this practice is occurring in the Western Cape building industry. On the Witwatersrand this has occurred frequently with immigrant artisans, many of whom arrived largely untrained. The unions apparently have been quite happy to take them - both to perpetuate the myth that the industry has enough White artisans and to increase fees from membership.

Thus it could be argued that an important trend operating
in the White labour market during the 1960's was the decrease in efficiency, brought about by "sucking" less skilled workers into the labour force. Almost all the contractors and professional men approached during 1969 in a survey conducted by Evenwel stated 'that the standard of skilled building labour had deteriorated alarmingly during the previous five years'.\(^{(49)}\) In 1975 the President of the Witwatersrand Master Builders and Allied Trades' Association stated publicly that there was a shortage of 3 000 skilled, competent artisans on the Reef and in Pretoria alone.\(^{(50)}\) This implies that approximately 30 percent of the artisans working in the industry that year were probably not meeting the production standards demanded of them, but were demanding wages equal to those paid to good quality labour. Clearly, under pressure of demand less experienced workers had to be drawn into the industry. Further, under the time payment (as opposed to piecework) system of remuneration used to pay artisans in the industry, no automatic adjustment mechanism operates to link wage levels to productivity.

5.3.1.5 Withdrawals from the Industry

As a result of the low apprenticeship intake in the past 20 years, the number of artisans who leave the industry every year due to permanent disability, having reached retirement age, early retirement or death is strikingly high. The number of artisan withdrawals from the industry in selected years from 1963 to 1972 is shown in Table 19.

Table 19: Withdrawals from the Building Industry 1963-1972

<table>
<thead>
<tr>
<th>Year</th>
<th>Death</th>
<th>Normal Retirement</th>
<th>Early Retirement</th>
<th>Permanent Disability</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>123</td>
<td>127</td>
<td>Not available</td>
<td>Not available</td>
<td>250</td>
</tr>
<tr>
<td>1965</td>
<td>151</td>
<td>100</td>
<td>&quot;</td>
<td>&quot;</td>
<td>251</td>
</tr>
<tr>
<td>1968</td>
<td>170</td>
<td>166</td>
<td>86</td>
<td>50</td>
<td>472</td>
</tr>
<tr>
<td>1969</td>
<td>161</td>
<td>133</td>
<td>146</td>
<td>48</td>
<td>488</td>
</tr>
<tr>
<td>1970</td>
<td>184</td>
<td>145</td>
<td>169</td>
<td>49</td>
<td>547</td>
</tr>
<tr>
<td>1971</td>
<td>249</td>
<td>419</td>
<td>59</td>
<td>40</td>
<td>767</td>
</tr>
<tr>
<td>1972</td>
<td>232</td>
<td>389</td>
<td>74</td>
<td>79</td>
<td>774</td>
</tr>
<tr>
<td>Total</td>
<td>1 270</td>
<td>1 479</td>
<td>534</td>
<td>266</td>
<td>3 549</td>
</tr>
</tbody>
</table>
To see these figures in their proper perspective, we must look at the size of the artisan labour force. For example, during 1972 when the number of withdrawals was 774 the artisan labour force on the Witwatersrand was estimated to be 11,700 (Table 15).

It is also interesting to note that the number of withdrawals due to normal retirements has risen sharply over the years. Whilst it was 127 in 1963, it had risen to 389 by 1972. The number of artisans who will leave the industry due to normal retirement in 1980 is estimated to be 460.\(^{(51)}\)

Another perspective on the withdrawal of artisans from the industry can be obtained by looking at the average age of the labour force. According to the Federated Employers' Insurance Co. Ltd., which administers the industry's pension fund, 7,136 (or 54 percent) of the 13,100 artisans working under the industrial council's jurisdiction in 1970 were between the age of 50 and 65.\(^{(52)}\)

In recent years these withdrawals have exceeded by a wide margin the number of apprentices and learners entering the industry which must mean a net decrease in the number of artisans in the industry. This can be seen quite clearly by comparing the figures in Table 19 with those in Table 17 and with the number of learners entering the industry (Section 5.2.1.3).

The large number of immigrants that have supplemented the inflow of artisans to the industry have in no way been a predictable inflow and, what is more important, this inflow stabilised in 1974 and is not expected to contribute as greatly to the industry's skilled manpower in the future. At the end of 1973 the Witwatersrand Master Builders' Association concluded:

"It has become evident that recruitment of immigrant artisans, the training of learner artisans and the acceptance of apprentices will not be sufficient to provide the industry with the required skilled manpower needed to execute construction work expected from the building industry". \(^{(53)}\)

Notwithstanding these obstacles, the attempts by organised employers to comply with job reservation restrictions should not be underestimated. As has been pointed out, these attempts have been made with the greatest sincerity. RIFSA has embarked on a number of
extensive manpower research programmes in addition to its more practical efforts to alleviate the skilled labour shortage. Up to the end of 1973, the total cost of this programme was estimated to be over R1 million.\(^{(54)}\) This included apprentice subsidies, the Baragwanath Centre, immigration, recruitment and research studies and the subvention of university and technical courses.

These efforts have partly been the result of two external pressures operating on the organisation. The first is the attitude taken by the Department of Labour when the organised industry made an initial approach to the Department concerning a relaxation of job reservation restrictions. It would appear that suggested alternative sources of White labour be investigated before any adjustment to existing work reservations were made. An executive in the industry has said:

"In the past we have gone to the authorities with our problems on the supply of skilled labour, we have been told to train, become more productive, mechanise, industrialise, recruit and so forth. We have complied with these requests, usually at a great cost to our industry, and in the case of training and recruiting, under present legislation, we are rapidly coming to the end of available resources".\(^{(55)}\)

Secondly, this policy was probably interpreted as an act of faith on the part of organised employers by union leaders. For unless a concerted effort had first been made to recruit from all legally approved sources, it is doubtful whether the unions would have agreed to negotiate over labour rationalisation at all. By all accounts, this strategy has been followed despite the foresight the organised industry probably had that it was working against an inevitable trend. In the final analysis it appears to be an integral part of the negotiations leading to Black occupational mobility in the industry and probably served to strengthen the bargaining hand of employers at negotiations.

5.2.2 African Labour

The supply of African labour to the industry, consisting of legal and illegal labour, in terms of their right to reside in the area, will not be discussed separately. This has already been touched on in Section 5.1.2 when contract labour procedures were discussed. The topic will be discussed implicitly again when the
question of wage determination is discussed in Section 8.

5.2.3 Coloured Labour

A discussion of the supply of Coloured labour to the industry will be deferred until Section 6.3 where the scope for Coloured building members in the Transvaal is discussed.

5.3 Labour Market Stresses in the 1960's and 1970's

The White labour shortages discussed in Section 5.2.1 manifested themselves at two levels in the industry. These shortages firstly revealed themselves through imbalances in the industry's labour cost structure and secondly, in day-to-day recruiting and organisational problems in the labour market.

5.3.1 Increases in White Labour Costs

In the 1960's the building industry, in common with all major production sectors of the economy, experienced a rapid increase in labour costs per unit output. This was due to a widening gap between average labour earnings and real output per worker. It is estimated that in the construction sector labour costs per unit output more than doubled between 1961 and 1970, whereas increases of only 24 and 28 percent were experienced in manufacturing and mining (except gold mining). In gold mining, average labour costs per unit output actually declined during the first half of the decade.

It is estimated that building costs were rising more than twice as fast as the retail price index. According to Borcken-hagen and Louw, a firm of quantity surveyors, the retail price index rose by 80 percent from 1963-1975 whilst the building cost index increased by a startling 183 percent over the same period.

These trends already give some insight into the process of adjustment that was to be followed by employers, since labour costs per unit output could have been lowered by substituting cheaper Black labour for more expensive White labour.

The large gap in construction was reinforced by a decline in real output per worker from 100 to 75 between 1961 and 1970 (1961 = 100), whilst the national average rose from 100 to 125 over the same period.
Analysing labour costs in greater detail, we find that whilst the total price index for building rose from 100 to 151 from 1963-1972 (1963 = 100), the building materials price index rose from 100 to only 129 in this period. On the other hand, the price index of labour over this period increased from 100 to 173.\(^{(59)}\)

Marshall argued that a crucial determinant of the elasticity of demand for union labour was the proportion that union labour bore to all labour costs. The higher this proportion the greater the impact of wage increases to this group on labour costs. As we have argued, the greater too the pressure to rationalise the labour structure. As Kessel put it:

"In the construction sector all wages make up 31 per cent of all total costs; 10 percent is accounted for by African wages, 4.6 percent by other non-White wages and 16.4 percent by White wages".\(^{(60)}\)

Incidentally the share of total wages in total costs in manufacturing was roughly 20 percent in the same year.\(^{(61)}\) The proportion of White labour costs in total costs is higher on the Witwatersrand because of an almost complete absence of Coloured labour ("other non-White labour") there.

In the period 1962-1966, a weighted average of White building artisans' average hourly earnings on the Witwatersrand increased by 44.6 percent whilst this increase was only 23.1 percent in the case of labourers.\(^{(62)}\) Thus during this period White wage increases were exerting greater pressure than African wages on overall labour costs. In the period 1968-1972, however, we find that artisan wages on the Witwatersrand rose by only 40 percent whilst those of labourers rose 60 percent.\(^{(63)}\) In this period, then, the impact of White wage increases on labour costs would still have been the same as that of Black wage increases, because of the higher proportion of White wages in the total wage bill. These changes must have influenced employers to try and reduce the rate of increase in White wages to stop the rapid increase in labour costs.

One of the most important reasons why the increases in wages in the White labour market was unsatisfactory was because
contracts were negotiated up to the beginning of 1973 with contractual clauses allowing for statutory increases in wages (and certain building materials) rather than average increases in these prices. The earliest cost escalation clauses written into tender documents provided that the owner should pay for any statutory cost increases in labour, steel and cement, which occurred whilst a contract was still in progress, i.e. payment over and above the tender price. Whilst this was agreed to in all public sector contracts, builders did this unilaterally in the private sector. Apart from the fact that builders were not granted these concessions on many price-controlled materials, these rules did not accommodate increases in the so-called "all-inclusive market cost of labour". This was especially necessary for large contracts where the cost of artisan labour was increasing within the life-span of a project.

It was only in 1974 that the public sector took the lead in covering builders for increases in all price-controlled materials plus changes in the market cost of labour. This latter condition presently only applies to contracts above R200 000, since it is reckoned that for contracts below this price the duration of the job is short enough to predict cost increases. Since this step was approved in the public sector, private sector clients have adjusted their tender documents likewise. BIFSA has set up machinery for the calculation of a labour cost index on a regular basis, with a panel of contractors agreeing to supply statistical data from which average wages can be computed. Labour costs have been defined for this purpose as the total of wages, cost-of-living allowances, holiday and pension fund contributions, all other fringe benefits and any form of statutory levy.

The pressure to contain cost increases for the reasons given above has been largely confined to artisan labour because of substantial "wage drift" in their earnings. The gap between minimum and average earnings was much wider in the case of White than it was for Black wages. For example, the minimum weekly wage in 1970 of building labourers on the Witwatersrand was 24,1 percent of that of artisans whilst the average weekly earnings of labourers in the same year was only 16,4 percent of that of artisans. (64) This is true of other grades of African labour as well. Whilst wages in
African wages have increased substantially in the period studied, these increases have been due to legislated increases in minimum wages rather than wage drift.

5.3.2 Recruitment and Hiring of White Labour

The difficult recruiting conditions in the White labour market have already been referred to in Section 5.2.1. Builders on the Witwatersrand experienced serious difficulty in finding artisan labour during boom periods. In building, contracts present themselves quickly and unexpectedly; under a competitive tendering system a contract may be awarded unexpectedly to one builder. Further, contractors are not indifferent to the length of time it takes to complete projects because of penalty clauses in building contracts. An executive who worked for a consortium whilst it was building the Carlton Centre told the writer that during 1971 the consortium was flying artisans out from England and paying their hotel accommodation since this proved cheaper than late completion. The general problem of labour recruitment is compounded by the fact that firms must retrench a certain proportion of their artisan labour when conditions in the industry become unfavourable.

Working overtime was one important means by which firms could overcome staff shortages. There was the added threat of large penalties on overdue buildings. In the period 1970-1972 the artisan labour force on the Witwatersrand was expanding much more slowly than the real value of buildings completed. (65) One explanation for this is the large amount of overtime worked by artisans in this period. Up to July 1972 the industrial council permitted employers to ask their staff to work 13 hours overtime a week - 1 hour per day and 8 hours on Saturday. However during the peak shortage in July 1972, this automatic exemption was raised to 2 hours per weekday and 8 hours on Saturday. (66) Requests for extended overtime from individual construction companies were also considered (on merit) by the council.

In the industry in 1970 the average weekly overtime worked by artisans was 10.2 hours. This had risen from 6.5 in 1968. By contrast, unskilled labourers were only working 7.8 hours overtime per week in 1970. (67) High amounts of overtime, of course, add
an inflationary element to labour costs per unit output because of the proportionately higher rate of pay for overtime work. In 1970, overtime earnings accounted for no less than 17.8 percent of the total earnings of bricklayers and plasterers in the industry. (68)

Apart from difficulties experienced in actually recruiting artisans, builders experienced difficulty retaining such labour during a boom period. For instance, it was reported in 1965, when a great deal of overtime was being worked, that artisans were taking advantage of the situation to float from one job to another in accordance with the amount of overtime they could secure. (69) The existence of "labour brokers" was apparently also a common phenomenon in the period studied. These brokers dealt in the supply of artisans, enticing them away from their employers and then passing them onto their clients. In 1971 it was estimated there were at least 50 operating in the building industry. (70) In recognition of this practice, BIFSA has laid down in its articles of association that:

"Members shall not bid for labour in competition with other members".

"Members shall not approach an employee in the service of another member with a view to offering him employment without first advising the member concerned of his intention". (71)

The intention of these rules was obviously to prevent the exploitation of a possible imbalance between supply and demand in the skilled labour market.

5.3.3 Adjustments by Employers

Both as an attempt to cut labour costs and as a reaction to the day-to-day recruitment realities in the White labour market, an important strategy open to employers was to entrust to Africans certain tasks reserved for White workers. It was noted in Section 2 that (in the short-run), the direction of substitution in a labour market segmented by union restrictions, is from union to non-union labour. In the longer run, labour-saving technologies such as industrialised building may be introduced. This distinction between the short- and long-run is important because it highlights the limited options readily available to employers. This distinction is also reminiscent of Reder's point that employers will initially
lower the minimum hiring standards they insist on from applicants for a particular job category, before altering the entire production technology they have been using.

The conditions in the building labour market at the time were most favourable to the use of job dilution techniques to overcome shortages of artisans. Several jobs of a simple repetitive nature were reserved for artisans in the industry by job reservation Determination No. 6. Assisted by one or two African 'handlangers', White artisans have cut corners in order to speed up the building process by permitting Africans to do some of these jobs. Bricklayers, for instance, have concentrated on building up the corners in wall construction (the most skilled part of bricklaying). African workers are then allowed to lay the bricks inbetween.

In plastering artisans have permitted labourers to lay on and smooth down the plaster before the final trowelling. In plumbing, labourers often do soldering work and the cutting of earthenware to size. A newspaper report quoted a Randburg plumber as saying that he was the only White in his firm and had 42 plumber's assistants - he dropped them all off at different jobs and then travelled from site to site supervising the work. The most widespread contraventions have been in the painting trade, where the skills are very simple, and a lack of training can be easily concealed since Africans often only do the undercoat or use rollers for painting. This would support Reder's conclusion that where the needed skill can be acquired in a short time by erstwhile excluded workers, hiring standards will be adapted.

There were also certain farcical prohibitions in these job laws. Africans were not permitted to hammer in nails with the correct side of the hammer, although they were permitted to use the round-headed side. They were not permitted to put a final coat of paint on a wall, but were allowed to nail in skirting boards - provided they did not use a hammer. They were also not allowed to use a bricklayer's trowel although they were permitted to use the inferior flat trowel.

The training effort involved in bringing workers to the level where they could perform these jobs appeared to be low or
non-existent. The general labour pattern in the building industry is that each artisan works with one or two unskilled labourers. The skills are generally picked up on-the-job, through learning by doing, which in fact does not even amount to on-the-job training. Thus it would appear that both the costs of training were low and the prospective net gain from training could be quickly realised.

Wilson's study of the gold mines provides a further example of this apparently large 'skill overlap' between White and Black workers on the same job. He quotes the view of one senior mining official that there were enough African miners with the necessary experience and ability to obtain without further training all the blasting certificates that the industry needed to issue (blasting was a job reserved for White miners at the time). (73)

Some reports have stated that there were also some trained Bantu Building Workers (see Section 6.2) doing skilled work in the private industry in the period. A newspaper report in 1964 stated that a high proportion of African building artisans in Johannesburg at the time were working alongside White artisans because township building had been curtailed. (74)

There is little evidence that the employment of Africans on skilled work has been undertaken after detailed cost-saving studies by employers, although one employer, the managing director of one of South Africa's largest home-building companies estimated in 1973 that he could cut the price of any house he built by R2 000 if he could employ African builders legally. (75) It is arguable that the practice of employing Africans illegally lends weight to the argument that the basic neoclassical two-factor analysis is the key force operating on the employer, i.e. that the demand for different factors of production is determined by the condition that costs per unit output be minimised. It would be unwise to regard this as a prime behavioural assumption about employers and as such may not offer real insights into the labour market behaviour described. This is because the cost-cutting objective may not be the only motive employers have in conditions of extreme labour scarcity. The use of Africans on skilled work may simply reflect the attempts of an industry to arrange its labour force such that essential production can be carried out. One Witwatersrand builder estimated
in 1974 that if Africans were not employed illicitly, 50 to 75 percent of the buildings going up at the time could not be built. (76)

Thus promoting old staff as it were was cheaper than raising wages for a whole category, and was thus a feasible strategy. The difference between this insight and that offered by the neoclassical two-factor analysis is that whilst the latter force operates at all times and under all conditions in the labour market due to wage gaps, the colour bar etc., the former is more specific in its insights suggesting that employers only had limited freedom to work in accordance with two-factor analysis.

5.3.4 Contravention of Legislation

In September 1973 inspectors from the industrial council raided 2501 building sites on the Witwatersrand (181 high-rise and 2320 housing projects) in an attempt to ascertain the extent of illegal work being done in the industry. On 1569 (or 62.7 percent) of the 2501 sites visited, contraventions of colour bar restrictions were found. These contraventions concerned mainly African labour, although a small number of Coloured artisans were also found to be employed in contravention of these laws. Table 20 shows that the trade in which these laws were being contravened on each site were largely those of bricklaying, plastering, painting and carpentry.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Housing</th>
<th></th>
<th>High-rise</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of</td>
<td>%</td>
<td>No. of</td>
<td>%</td>
<td>No. of</td>
</tr>
<tr>
<td></td>
<td>Contraventions</td>
<td></td>
<td>Contraventions</td>
<td></td>
<td>Contraventions</td>
</tr>
<tr>
<td>Bricklaying</td>
<td>326</td>
<td>22,0</td>
<td>14</td>
<td>12,0</td>
<td>340</td>
</tr>
<tr>
<td>Pt. Carpentry</td>
<td>347</td>
<td>24,0</td>
<td>28</td>
<td>25,0</td>
<td>375</td>
</tr>
<tr>
<td>Floating</td>
<td>74</td>
<td>5,0</td>
<td>30</td>
<td>27,0</td>
<td>104</td>
</tr>
<tr>
<td>Painting</td>
<td>352</td>
<td>24,0</td>
<td>11</td>
<td>10,0</td>
<td>363</td>
</tr>
<tr>
<td>Plastering</td>
<td>338</td>
<td>23,0</td>
<td>29</td>
<td>26,0</td>
<td>367</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>1,0</td>
<td>1</td>
<td>1,0</td>
<td>20</td>
</tr>
</tbody>
</table>

|               | 1456    | 100,0 | 113        | 100,0 | 1567    | 100,0 |

Source: Industrial Council
The predominance of contraventions in the four trades mentioned is noteworthy, both because these trades experienced the greatest shortage of artisans and many repetitive tasks have been reserved for artisans.

It is also noteworthy that the rate of overall contraventions was the same on housing as high-rise construction (62.8 vs. 62.4 percent respectively). Housing sites are less exposed to view than high-rise projects and this could encourage housing contractors to take greater risks in the use of labour illegally. This is contradicted by the evidence. In view of the fact that the serious shortage of artisan labour was felt in both sub-sectors of the industry and that the alternative in high-rise was to increase wages to attract artisan labour, it is not surprising that larger contractors were prepared to take such risks as well. This conclusion is given added support by the fact that convictions under these laws were few and far between (see below).

The entry of Africans to these trades has not been controlled by the unions and conditions of employment are difficult to ascertain because employers are understandably reluctant to discuss this area of employment. However, the writer had access to prosecutions in terms of job reservation Determination No. 6 and the Bantu Building Workers' Act handled by the industrial council prosecutor. Of the 148 cases in which employers had employed Africans illegally, in not one case were skilled rates paid, with wages being in the region of one quarter of the minimum skilled rate at the time. In 131 cases, the workers were being paid at or slightly above the unskilled minimum rate ruling at the time. In another 17 cases, workers were being paid below this rate. However, of the 31 contraventions involving Coloured artisans, only 12 were paid less than the minimum artisan rate payable at the time.

The nature of the contraventions concerning Africans were tasks such as laying tiles on a floor, plastering using a trowel and hand hawk, nailing and fixing of timber skirting to walls, fixing ceiling board, laying stockbricks and laying slasto to a floor.

Some of the largest wage infringements have been at growth points in rural areas where industrial councils have by and large not extended their jurisdiction. In 1971 fifteen contractors
in Richards Bay and Empangeni (Richards Bay is a border area) were granted exemption to employ Africans on skilled work in bricklaying, plastering, carpentry, plumbing and painting. The industry there was at that stage not subject to wage regulation, and the Secretary of the Amalgamated Trade Workers' Union stated in 1971 that African bricklayers at Empangeni were being paid between 20 and 35 cents per hour whilst the ruling artisan rate was between R1.50 and R2.00. Between 1969 and 1971 legal proceedings were instituted against 8 employers in the Newcastle area for underpayment. Apparently, the Africans being employed on skilled work were being paid one fourteenth of the ruling skilled rate.

There is evidence that the Department of Labour and the industrial council (who both do inspectorial work) were almost resigned to the de facto position in the labour market. The original industrial tribunal which investigated the industry (in early 1960) noted that it was aware of widespread contraventions in painting, bricklaying, plastering and carpentry. Simons and Alexander have argued that the Native Building Workers' Act (1951) was introduced partly to stem this illegal employment - they estimated over 4,000 Africans were doing skilled work on the Witwatersrand at the time.

Assessors on the employees' side at the re-investigation of job reservation Determination No. 6 stated in their memorandum:

"It was obvious from observations throughout the tour of inspection that because of the lack of control of applying both the Determinations, Nos. 6 and 13, and the Bantu Building Workers' Act, that job reservation in the building industry has not been applied in the manner envisaged".

A past Divisional Inspector of Labour for the Southern Transvaal said that in 1967 there were 27 inspectorial posts in the Department of Labour but only 7 were filled at the time. Due to this staff shortage, they were only able to follow up complaints received.

Apart from the fact that inspectors found it impossible to police the area effectively because of a serious staff shortage in some outlying areas they were well known and there were often only three of them for nine magisterial districts. Further, em-
Players often paid admission of guilt fines which do not involve a great deal of money and it was often worth their while to do so. \(^{(82)}\)

As time progressed, contraventions tended to become more common and inspectors have been quoted as saying that they turn a blind eye to blatant contraventions. \(^{(83)}\) Contraventions were also encouraged by the large discrepancy between the number of contraventions found and the number of prosecutions obtained. Employers too, had the court's sympathy - White workers simply were not available to do the work - and the law had to be applied with equity. Further, there was a difficulty in actually obtaining convictions since a firm might overcome a job reservation prohibition by for example not issuing specialised tools to Africans doing artisan work: for example, by issuing an inferior flat trowel instead of a bricklayer's trowel to African bricklayers. Contraventions were also encouraged by the large-scale exemptions granted to job reservation laws in the late 1960's by the Department of Labour.

5.3.5 Union Attitudes

In order to understand more fully the change that occurred in the unions' attitude towards de jure (as opposed to de facto) Black occupational mobility, we must look more closely at the dynamics of the labour market during this period.

In urban areas some of the largest contraventions of the colour bar have been by labour-only sub-contractors. Under labour-only, the main contractor provides the materials and equipment. That the sub-contract is for 'labour only' distinguishes it from the predominant form of sub-contract known as 'supply and fix' in which the sub-contractor provides the materials and equipment as well as the labour needed to perform a specified part of the whole task. Since the sub-contractor is therefore small and requires no capital or organisation, the 'firm' is most often little more than an artisan and a labourer, and he moves backwards and forwards across the border between self-employment and normal employment. Payment may either be 'lump sum' or 'piece rate' i.e. Rx per 1 000 bricks laid, for example. Piece-rate payment is the more popular form however. Labour-only subcontracting was an illegal practice in the industry until 1975.
Often these employers pay very low wages - they use mostly casual labour - and since they operate largely in the field of bricklaying and plastering, they utilise their labourers on parts of these jobs. In many instances the contractor will disappear on the last day of a job and save himself the cost of paying wages. Many main contractors are negligent in checking up on the conditions of employment of labour-only sub-contractors' employees. Since labour-only sub-contractors do not consider themselves to be employers in the industry (in the strict sense of the word), they do not register as such with the industrial council and therefore cannot be pinned down by the industrial council as to whether, for instance, they are purchasing stamps for their workers or not. A rough survey conducted by the industrial council in 1973 disclosed that 2,500 labour-only subcontractors were working in the industry, although none were registered at the industrial council.

As long as the labour-only contractor is registered with the industry and can be pinned down, the sub-contractor can be treated as a bona fide employer. It is the prevalence of not registering in the industry that makes wage evasion high.

A drawback common to all methods of 'payment by results' is that to put a man under strong incentive to work quickly puts him under a strong temptation to work shoddily. Labour-only is felt to be inherently less responsible than "supply and fix" because they do not pay for broken materials, and generally blame poor workmanship on the quality of materials. Some subcontractors sometimes have to sacrifice 10 percent of their due payment from the client as part of the retention clause for defects that appear after the job is finished. However, they may well build in such a manner that in the 6-9 months during which payment is held back everything will appear well-built.

It would appear that the extension of labour-only subcontracting is encouraged by the high levels of artisan employment in the industry; in labour markets where vacancies exceed applicants and employers are competing for labour, artisans feel inclined to strike their own bargains and go out on their own. Sub-contracting under piece-rate payment offers higher returns at little risk. Unemployment tends to encourage conventional artisan employ-
ment and restrain men from returning into unprotected bargaining through subcontracting. A main reason for joining a union is its ability to prevent a depression of the rate for the job by an excess of applicants over vacancies.

To some extent, the attitude of artisans to colour bar restrictions will depend on the basis upon which they place their services at the disposal of the industry. Thus, for instance, an artisan employed on a time basis, as intended by the industrial council agreement, is much less inclined to permit or encourage irregularities than those employed on a piece-rate or contract basis. Under a 'piece-rate' payment system, there is a great incentive for labour-only to allow colour-bar contraventions, since the quicker the work is completed the higher the rate of payment per hour. One builder indicated that the labour-only bricklayers he employed in 1972 were laying up to 1 500 bricks a day whilst the average time-paid artisan would normally only lay 800. The rate of payment for labour-only contracting is high - in 1971/72 the same builder was paying labour-only contractors R30 per 1 000 stock bricks and R45 per 1 000 face bricks laid. This fee may, however, be shared between two artisans in a team.

Labour-only subcontracting tends to alienate union members from the union. There has been a loss of membership by all unions - the general secretary of one union understandably declared labour-only subcontracting to be the "number one problem" facing the union. This tendency to leave the union has been encouraged by the absence of serious unemployment which may inhibit labour-only subcontracting. Apparently the prevalence of labour-only subcontracting in the industry diminished greatly in 1975 and 1976.

Labour-only contractors have through their colour bar contraventions undercut the hard-line stance taken by union leaders on the job colour bar. This has weakened the bargaining power of the unions at negotiations. This argument also applies to conventionally-employed union members who actually take time off from the job to allow Africans to perform the more disagreeable jobs reserved for White artisans. Whilst the union has within its power the right to discipline members who allow such contraventions, it needs to be careful in case it alienates its members.
Apart from the internal political coherence of the unions, they are also influenced by the forces operating in the labour market. Firstly, pressure emanates from employers to bring about change because stresses in the labour market manifest themselves in the cost structure and day-to-day recruitment problems. As will be pointed out in Section 6, the Government has stepped in to provide training facilities for Blacks where the union attitude was creating a bottleneck. This is one part of the broader issue of whether unions can alienate public opinion by their hard-line attitudes. On the side of the unions, they regard themselves as having a responsibility to restore order in the labour market when the traditional industrial organisation breaks down. In 1972 Gert Beetge of the militant Blankebouwerkersvakbond stated:

"There is no job reservation left in the building industry, and in the circumstances I support the rate for the job as the second best way of protecting our White artisans". (84)

Clearly, this union leader was not only acknowledging the widespread contravention of the various job colour bars in the industry but also suggesting that the entry of Black workers should be controlled by the various interest groups in the industry.

5.4 Conclusions

The major conclusions emerging from this section are of two different types, though interrelated. Firstly, strong factual evidence of certain major trends and stresses in the labour market were presented. Secondly, certain conclusions were reached as to the reactions by three interested parties - the Department of Labour, employers and trade unions - to these trends and stresses. The conclusions will be discussed in this order.

It has been shown quite clearly what impact the cyclical pattern of building output has on the character of both the White and Black labour force in the industry. In the case of the former, cyclical unemployment has probably depleted the industry's artisan labour force by up to one-third since 1960. The various other forms of unemployment have also been a major deterrent to Whites keen on careers in the industry.
Secondly, the artisan shortages experienced have been structural rather than 'dynamic' as referred to by Arrow and Capron. All the evidence suggests that there has been a long-term trend for White workers to move out of the industry. The building industry generally employs Whites at the lower end of the intelligence distribution. With economic growth White artisans have been able to move either into higher echelons of the industry or to preferred avenues of employment. This may partly be a result of unavoidable forces causing substantial unemployment in the industry. The general argument is particularly characteristic of the bricklaying, plastering and painting trades which exhibit very large shortfalls in apprenticeship requirements and a high average age of the labour force.

Thirdly, there has been a definite response by official organisations and employers to these shortages, rigidities in de facto changes notwithstanding. At the official level, the entry requirements for prospective apprentices have been lowered in order to comply as fully as possible with colour bar legislation in the industry. With regard to employers, there has been a widespread tendency for shortages on the shop floor to be corrected by reclassification of work, in advance of changes brought about by negotiated means. The advent of labour-only subcontracting has further weakened the control unions have over changes on the shop floor.

The first-line reactions of both the Department of Labour and organised employers to these shortages have been similar. This strategy has involved the full exploration of every possible avenue in order to place the industry in a position to comply with job reservation Determination No. 6 and the Bantu Building Workers' Act. This is witnessed by the policy of granting exemptions from various important provisions of the Apprenticeship Act.

This strategy has also involved BIFSA in a costly, time-consuming and extensive programme embracing research, education, recruitment and training. This has proved beyond all doubt that the federation 'has done as much and more than could reasonably be expected of it' to make work reservation a viable proposition.
The lag in de jure adjustment to the reclassification of work as a result of this has allowed White labour costs to escalate and forced employers to contravene colour bar legislation in an attempt to cope with vast expansion in the sector during this period.

The propensity of unions to begin bargaining in this period over the reclassification of work is understandable in the light of two major trends revealed in Section 5. Firstly, there was little evidence to lend weight to the traditional union claim that the employment of Africans on reserved work had been to the detriment of the White workers' interests. The foregoing analysis suggests that the dilution of artisan work that occurred was not part of a wider programme to rearrange the labour force in accordance with a labour cost-minimising programme. This fuller adjustment would be predicted by neoclassical labour market principles (with full adjustment due to a wide wage gap between union and non-union labour etc.). The process was rather one of delaying the increase in White labour costs by promoting workers internally rather than having recourse to the external labour market. As will be pointed out in Section 6, employers exercise a strong preference for White labour when it is available and this inhibits the free utilisation of labour.

Secondly, the failure of the extensive White recruitment programme undertaken by BIFSA was probably interpreted by the unions as an "act of faith" on the part of employers.

Finally, the unions became aware that their bargaining power had been undermined by events in the labour market, and that their policies had to be based on new realities. These realities included the ability of the market to pre-empt changes in the de jure labour structure of the industry with de facto reclassification. These two features of the labour market - an elastic supply of non-union labour and the diminished essentiality of union labour - Marshall predicted would make the demand curve for union labour more elastic thereby weakening the bargaining power of the unions. Furthermore, the fact that White labour represents a higher proportion of all labour costs in building than manufacturing has probably subjected White unions in the industry to pressure from employers to adopt a more reasonable attitude to labour rationalisation.
These figures are based on "stamp" sales to employers by the industrial council. Every worker in the industry possesses a card subdivided into 49 squares (for the 49 working weeks of the industry). The employer will present an artisan with a stamp at the end of each working week which covers the employer's statutory contribution to all social security benefits such as holiday and pension funds. These stamps may be cashed in at the end of the year, as in the case of holiday pay, or added to the employer's previous contributions (as in the pension scheme). The value of the stamp increases with the grade of the worker, being lowest in the unskilled category. Clearly the number of stamps which the employer purchases is a guide to the number and class of workers being employed. It is therefore possible to deduce the annual average number of weeks worked annually, by (say) artisans, by averaging the number of stamps in each book. On the other hand, all stamps are valued at benefits which would be paid had the employee worked a full 40-hour week, so that an artisan who only realised (say) 22 hours in a week would receive a stamp with 40 hours' benefits, but have the remaining 18 hours' benefits deducted from his wages. It is therefore not possible to estimate accurately what proportion of each week was worked by an employee.


(3) Ibid., p.46.


(5) These figures are taken from meteorological reports available at the S.A. Public Library.


(9) Ibid., p.86.

(10) Ibid., p.85.

(11) Ibid., p.100.

(12) S.A. Builder August 1964, p.27.


(15) Ibid., p.647.


(22) See Section 6.3

SECTION 5.2

(23) BIFSA, Memorandum for the Information of the Industrial Tribunal etc. 14/9/1973, p.25.


(25) Ibid., p.62.

(26) BIFSA, op.cit., p.11.

(27) BIFSA, op.cit., p.39.

(29) Ibid., pp.93-144.


(31) Ibid., p.7.34.


(35) During 1974 the 12 387 artisans working within the jurisdiction of the Witwatersrand industrial council were made up of: bricklayers (3 173), carpenters and joiners (5 220), plasterers (1 391), painters (966), plumbers (746) and others (891).

(35a) Report by the Industrial Tribunal etc. 31/10/1974, p.4. (Annexure A).

(36) BIFSA, op.cit., p.3, (Annexure A).

(37) Ibid., p.23.

(38) Ibid., p.3, (Annexure A).


(40) BIFSA, Sixty-Ninth Annual Report, p.23.

(41) BIFSA, Memorandum for the Information of the Industrial Tribunal etc. 14/9/1973, p.31.


(44) Ibid., p.27.

(45) Ibid., p.58.

(46) National Development Fund for the Building Industry, op.cit., p.64.

(47) S.A. Builder November 1975, p.21.


(49) J.K. Evenwel, Modern Building Methods, p.63.

(51) BIFSA, Memorandum for the Information of the Industrial Tribunal etc. 14/9/1973, p.65.

(52) Ibid., p.3, (Annexure A).

(53) Ibid., p.64.

(54) Ibid., p.32.


SECTION 5.3

(56) Mercabank, Focus on Key Economic Issues No. 6, p.4.

(57) Sunday Times 20/7/1975.

(58) Mercabank, op.cit., p.3.

(59) Calculations provided by the National Productivity Institute.


(61) Ibid., p.363.

(62) See Section 7.

(63) Department of Statistics, Report No. 01-20-01, p.ix.

(64) See Section 7.

(65) See Section 4 and Table 15.


(68) Ibid., p.58.


(70) Race Relations Survey 1971, p.195.


(72a) Sunday Express 20/1/1974.
(74) Race Relations Survey 1964, p.252.
(75) Sunday Express 20/1/1974.
(76) Ibid.
(78) Race Relations Survey 1972, p.301.
(79) Verslag en Aanbeveling van die Nywerheidshof ens. 10/7/1959, p.13.
(81) Report and Recommendation by the Industrial Tribunal etc. 31/10/1974, p.1,(Annexure B).
SECTION 6

INSTITUTIONAL ADJUSTMENTS AND OCCUPATIONAL MOBILITY IN THE WITWATERSRAND BUILDING INDUSTRY
6.1 Introduction

The previous section described the stresses in the Witwatersrand building labour market over the period 1960 to 1974 and showed the serious position that the industry found itself in because of its inability to recruit skilled White labour. It emphasised the factors leading to a need for the reclassification of work in the industry. The focus of Section 6 is therefore on de jure occupational mobility of African and Coloured workers in the industry in response to these stresses.

Black occupational advancement in the building industry has meant change in three separate spheres: a) reclassification of work in the private building industry negotiated by the registered trade unions and employer organisations, b) changes in job reservation Determination No. 6 brought about by the Department of Labour, and c) adjustments in the Bantu Building Workers' labour force.

Before turning to the actual study of occupational mobility, we must look at the structure of the industrial council, the trade unions and the employers' organisations. The area of jurisdiction of the Industrial Council for the Building Industry (Transvaal) extends from Delmas in the east to Carletonville in the west, and from Pretoria (in the north) to Sasolburg. It also includes towns on the outskirts of the Witwatersrand like Middelburg, Witbank, Potchefstroom and Klerksdorp. About 70-80 percent of all buildings completed in the Transvaal are within the industrial council's jurisdiction.

For administrative reasons, the industrial council is sub-divided into two committees - the Pretoria committee which is based in that city and administers the agreement in the northern areas of its jurisdiction, and the Southern Areas committee (the larger of the two), which is based in Johannesburg and controls the entire Reef including Klerksdorp, Potchefstroom and the Vaal Triangle. The general secretary of the industrial council and its headquarters are located in Johannesburg.

According to information supplied by the council, in 1974 there were approximately 65,000 non-artisans working in the
southern areas with another 25 000 working in the area covered by the Pretoria committee. Thus the council legislates over a very large area and, artisans included, its agreements cover roughly 100 000 workers. This figure may not correlate with certain of the tables in the text. This is because some of the other figures refer solely to the labour force in the southern areas.

It is estimated that another 20 000 non-artisans work in non-industrial council areas of the Transvaal - mainly Rustenburg and Pietersburg. The industrial council has been thinking of extending its jurisdiction to Rustenburg because of the large building projects there at present.

There are four registered trade unions representing artisans at industrial council negotiations. The Blankebouwerkersvakbond (hereafter shortened to BBV) is the largest union in the industry and was officially founded in 1957. It is a craft union admitting all trades except electrical wiremen. It is also an all-White union. Apart from its Transvaal membership, the union has approximately 800 members in Natal and 350 in Bloemfontein. It is not represented in the Cape Province.

The Amalgamated Union of Building Trade Works (AUBTW) is the second largest union in the area and came about as an amalgamation of many smaller unions. It is represented Republic-wide and has recently opened a branch in Cape Town. It is a multi-racial craft union established in 1918. The union admits all trades.

The two smaller unions in the area are the Operative Plasterers Union and the Amalgamated Society of Woodworkers (ASW). The Operative Plasterers' Union is also an all-White union having less than 100 members, but because of its size merits no special consideration. The ASW is the oldest building union in the country and was started in Cape Town in 1888 by British carpenters. The union is multi-racial and is represented nationwide. Until 1968 the Transvaal branch only admitted carpenters and joiners but since that date all trades have been admitted. Out of approximately 2 200 carpenters on the Witwatersrand, 800 belong to the ASW.

The four unions in the industry do not only admit building tradesmen working in the building industry. They also accept as
members building tradesmen working for Escom, SAPPI, gold mining, engineering, A E & C I and the municipalities - in fact in any industry employing large numbers of building artisans. Hence the unions negotiate with employers in these industries as well. The secretary of the AUBTW estimated that only 60 percent of his membership worked in the building industry, whilst 30 percent worked for the gold mines and 10 percent for the Johannesburg municipality.

At the national level, the AUBTW is the largest building union. They are followed by the BBV. The AUBTW estimates that it has 75 percent of all union members in the Durban area and 90 percent in Pietermaritzburg, Port Elizabeth, East London, Grahamstown and Queenstown. Table 21 shows the relative size and membership figures of all the registered unions in the construction sector in August 1974.

Table 21: Registered Trade Unions in the Construction Sector in 1974.

<table>
<thead>
<tr>
<th>Membership</th>
<th>White</th>
<th>Coloured/ Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) S.A. Electrical Workers' Association</td>
<td>16077</td>
<td>16077</td>
<td></td>
</tr>
<tr>
<td>2) Amalgamated Union of Building Trade Workers of S.A.</td>
<td>4250</td>
<td>6896</td>
<td>11146</td>
</tr>
<tr>
<td>3) Blankebouwerkersvakbond</td>
<td>6565</td>
<td>6565</td>
<td></td>
</tr>
<tr>
<td>4) Western Province Building Workers' Union</td>
<td>-</td>
<td>6323</td>
<td>6323</td>
</tr>
<tr>
<td>5) Amalgamated Society of Woodworkers</td>
<td>2943</td>
<td>923</td>
<td>3866</td>
</tr>
<tr>
<td>6) S.A. Woodworkers' Union</td>
<td>-</td>
<td>2702</td>
<td>2702</td>
</tr>
<tr>
<td>7) Western Province Building &amp; Allied Trade Union</td>
<td>543</td>
<td>543</td>
<td></td>
</tr>
<tr>
<td>8) S.A. Operative Masons' Society</td>
<td>80</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>9) P.E. Operative Plumbers' Association</td>
<td>38</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>10) Operative Plasterers' Trade Union of S.A.</td>
<td>23</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

Source: S.A. Institute of Race Relations, Registered Trade Unions in S.A., p.17.
Reliable data on union membership in the Transvaal is unobtainable. According to industrial council records the BBV had 8,082 members in the Transvaal in 1973 whilst the AUBTW and ASW had 2,760 and 756 members respectively. However, these figures tend to be inflated because they include members who are out of benefit for being in arrears with their membership fees. Union membership expires automatically if dues are more than three months in arrears. The general secretary of the AUBTW told the writer that out of 11,000 members in his union about 3,000 could be out of benefit for being in arrears with membership fees. Certain of these figures also include artisans who work in other industries. These figures are, however, a reasonable guide to the relative strength of the unions operating on the Witwatersrand.

On the opposite side of the bargaining table, building and masonry employers are represented by the Master Builders' Association (MBA) and Master Mason and Quarry Owners Association. These two organisations have the responsibility of negotiating agreements on behalf of employers in the two industries. Once an agreement has been approved, all employers in the industry are bound by it. A similar arrangement is enforced with respect to the unions.

In 1973 there were 5,908 employers on the files of the industrial council, of which 591 were MBA members, 2,617 were non-MBA members and 12 were Master Masons. The remaining 2,688 were inactive employers. (Inactive employers are those not working in the industry. An employer remains on the list until he himself withdraws his registration - apparently the incentive to do so is the employer guarantee/deposit he gets back. In 1973 870 employers withdrew from the industry).

The discussion in this section is arranged in the following way. Section 6.2 deals with the scope for Bantu Building Workers in the industry. This is dealt with first because the Bantu Building Workers' Act (passed in 1951) provided for the registration and training of Africans as qualified building artisans. The legislation permitted Bantu housing authorities to train and employ Africans as building artisans on skilled tasks and to carry out all building operations which were necessary in the development of Bantu housing schemes, subject only to a measure of supervision by trained White personnel. Thus a parallel artisan labour force to
the one in the private sector exists, and within this context much progress has been made. The extent to which African pupils have acquired building skills as part of their technical school curriculum is also discussed.

Section 6.3 analyses the occupational advancement of Coloured building workers in the Transvaal. The utilisation of Coloured labour under job reservation Determination No. 6 is considered first. This Determination was described in Section 3. The relaxation of Determination No. 6 and its replacement with Determination No. 28 is considered thereafter. Certain hypotheses emerge from this section concerning, firstly, the ease of entry of Coloured labour into the industry vis-a-vis Africans, and secondly, the long-term employment prospects of Coloured artisans in the industry.

Section 6.4 deals with de jure changes in African occupational mobility in the Witwatersrand building industry up to 1974. This is an important analytical section since the conclusions emerging concern the dynamics of job reclassification under the industrial council system today. A detailed description of the fragmentation agreements made up to 1974 is given in Sections 6.4.1 and 6.4.2. Section 6.4.2 discusses the events leading up to what is acknowledged to be the biggest and most successful fragmentation agreement in the industry, the one concluded in 1974/75. Using the data collected, an attempt is made in Section 6.4.3 to highlight the major features of these agreements including the bargaining relationship between the parties. In this way it is hoped to emerge with a relevant and practical set of explanatory tools concerning:

1) how the move away from statutory discrimination inherent in the reclassification of jobs has been reconciled with demands for protection from White workers;
2) concessions in the form of increased earnings and employment guarantees granted to White workers.

In Section 6.4.4 we look at attempts by the private industry to train black workers, while Section 6.5 summarises the main conclusions reached in the foregoing analysis.

6.2 The Scope for Bantu Building Workers

6.2.1 Historical Perspective

Since this study is looking at the occupational mobility
of African workers in response to shortages of White labour, it is imperative to look at the progress made by Africans under the Bantu Building Workers' Act. The Bantu Building Workers' labour force is an artisan labour force parallel to that in the private sector. The material in this section was not presented at a later stage because chronologically the training of Africans under the Act was the first organised attempt to train Africans to do skilled building work.

Housing has been the lynchpin of the urban African problem. Until recently, local authorities were required to provide decent accommodation for Africans resident in their area. One central problem in this regard has been the inadequacy of the White artisan labour force to carry out the requisite housing programme. This shortage was particularly serious after World War Two when it was estimated that the ratio of White apprentices to artisans was lower in the building than in any other major industry. (1)

From as early as 1930 there were widespread demands that African building workers be employed on all building erected by Africans. (2) These demands were made on two grounds. The first is equity, namely, that if Africans are excluded from a wide range of occupations through colour discrimination, then their employment in the service of their own people should, in fairness, be open to them.

The second reason for these demands is an economic one. The utilisation of African artisans on housing has reduced building costs on African housing projects quite considerably. For instance, when trained Bantu Building Workers were first employed by the Johannesburg municipality in Soweto, it was estimated that labour costs per square foot dropped from 12/3d (the estimated cost using White labour in 1946) to 6/5d in 1951. (3)

The earliest attempts to train Africans for this work were made in 1946 when Africans began training under the COTT scheme originally devised for White ex-servicemen (see Section 5.2.1.3). (4) In this year the postwar building boom began and significant shortages of building tradesmen were experienced. Although a ten-year employment preference guarantee was promised to White artisans in the Transvaal once this group qualified, the plan was
vehemently opposed by the building unions and COTT instructors were compelled to withdraw or face expulsion from these unions. The government, however, continued with the scheme and by June 1947 almost 90 Africans had qualified.

Apparently a similar scheme was mooted in 1947. It was to provide for the training of 400 Africans a year as building artisans at a school to be set up in King William's Town. There is no evidence that this was, in fact, started.

The Bantu Building Workers' Act No. 27 of 1951 (as amended by Act. No. 60 of 1955 and Act. No. 56 of 1959) provided for the training and registration of Africans as building artisans to enable them to satisfy the housing needs of their own people. Section 2 of the Act provided for the establishment of the Bantu Building Workers' Advisory Board. This consists of seven or more persons, one of whom is appointed chairman by the Minister of Labour, whilst the rest are appointed from persons nominated by employers' organisations and registered trade unions (on an equal basis). The Board makes recommendations to the Minister in regard to training, conditions of employment and any other matters referred to it (clause 3). Wage determinations are made every three years by the Wage Board.

6.2.2 Training

There are three stages to becoming a Bantu Building Worker. The first is working as a labourer on the job, after which the worker may be registered as a Learner Grade B. After a minimum period of one year, the Learner may do a practical test on the recommendation of his employer and if he passes becomes a Learner Grade A. However, a Learner Grade B will automatically become a Learner Grade A after effluxion of two years. A Learner Grade A may in the same way become a qualified Bantu Building Worker after two years, but again may do the practical exam after one year if he is considered good enough. It is necessary to pass a practical test to become a qualified artisan.

The system thus resembles apprenticeship training, with a stipulated training period and training procedure, on-the-job training and graduated scales of pay for learners. The learnership
is served with a team of Bantu Building Workers: there is no formal training at a technical college. A Learner may qualify in any one of the following trades: blocklaying, bricklaying, carpentry, electrical fitting and wiring, painting, plastering and plumbing.

The skills required to pass the practical exam at the end of the period are of a similar standard to those normally demanded of building apprentices. Bricklaying apprentices must be able to do the setting out of brick foundations, building of door and window frames, whilst carpentry apprentices must be able to hang doors, make door frames and erect shuttering for concrete beams and slabs. Bantu Building Workers have erected many special buildings, including schools, shops, public halls, police stations and sports stadiums. Supervision generally amounts to only one supervisor per ten building workers and eighty labourers. (6)

According to numerous people interviewed during the field work, the high standard of training together with both insufficient building work at all times in the townships and the artisan shortage in the private building industry, encouraged many graduates to look for work in the private building industry on the Witwatersrand. This has been noted in certain newspaper reports. (7) The principal of the Vocational Training Centre in Soweto indicated that many of his graduates were working for contractors in the private industry and being paid far higher wages than those laid down by the Wage Board.

A retired Bantu Labour Officer for the Southern Transvaal said he too was aware that this was happening on a large scale during his term of office and added that, in this particular case, he saw no reason why it should not be allowed legally.

When the Act was introduced in 1951, it was strongly opposed by the registered trade unions on these grounds. Section 14 was therefore written into the Act and stated:

"No employer may, except with the written consent of the Minister, employ a Bantu upon skilled work in the building industry within an urban area, elsewhere than in a Bantu area. Nor may a White person be employed in connection with building work on which a Bantu is employed on skilled work in the building industry, unless such White person is employed in
6.2.3 Employment Conditions

The inclusion of Section 14 restricts Bantu Building Workers to doing artisan work in the townships. This means that rates of pay need not be competitive with artisan rates in the private building industry, i.e. it enables a dual wage structure for artisans to exist on the Witwatersrand. Rates of pay are in fact much lower in the townships as the following figures illustrate:

Table 22: Minimum Wages of Bantu Building Workers in the Southern Transvaal 1964 - 1976. (Rands per hour).

<table>
<thead>
<tr>
<th>Period</th>
<th>Learner Grade B</th>
<th>Learner Grade A</th>
<th>Bantu Building Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1964 - June 1967</td>
<td>0,16</td>
<td>0,20</td>
<td>0,27</td>
</tr>
<tr>
<td>July 1967 - June 1970</td>
<td>0,21</td>
<td>0,26</td>
<td>0,34</td>
</tr>
<tr>
<td>July 1970 - June 1973</td>
<td>0,28</td>
<td>0,34</td>
<td>0,44</td>
</tr>
<tr>
<td>July 1973 - June 1976</td>
<td>0,35 (Col. A)</td>
<td>0,43</td>
<td>0,55</td>
</tr>
<tr>
<td></td>
<td>0,38 (Col. B)</td>
<td>0,47</td>
<td>0,60</td>
</tr>
<tr>
<td></td>
<td>0,44 (Col. C)</td>
<td>0,55</td>
<td>0,70</td>
</tr>
<tr>
<td>July 1973 - June 1976</td>
<td>0,43 (Col. A)</td>
<td>0,49</td>
<td>0,60</td>
</tr>
<tr>
<td>(Western Cape only)</td>
<td>0,47 (Col. B)</td>
<td>0,53</td>
<td>0,65</td>
</tr>
<tr>
<td></td>
<td>0,55 (Col. C)</td>
<td>0,62</td>
<td>0,76</td>
</tr>
</tbody>
</table>

* Including Learners

Source: Building and Allied Industries' Official Handbook (various editions).

The earlier determination made no provision for automatic wage escalation to compensate for price increases during a determination. The penultimate determination however directed that wage rates in Column A were only to be paid until the consumer price index reached 130, after which Column B rates became effective. Column C rates have been paid since 1974 when the price index reached 140. Minimum wages in the Western Cape are higher as shown in the last row of Table 22.
The minimum wage for Bantu Building Workers in the southern Transvaal is R0.70 at present. The minimum rate for artisans in the private building industry on the Witwatersrand in 1974/75 was roughly R1.76 (see Section 7). This wage difference will be referred to again in Section 7.5.

6.2.4 Growth of the Labour Force

Between 1951 and 1973, 6 853 Bantu Building Workers were registered.\(^{(9)}\) This gives a rate of increase in the labour force of approximately 280 per annum. However, it appears that the rate was higher in later years. During 1972, for instance, 651 candidates were tested, of whom 496 passed. In the same year there were 454 Learners.\(^{(10)}\)

These figures include Africans who have not trained under the Act (using the learnership scheme), but who have merely passed the trade test in terms of the Act. Few of the Bantu Building Workers in Soweto had gained their status through the inservice learnerships offered by the building section. Many are pupils who have attended trade schools in different centres. In Dube there is a trade school (called the Vocational Training Centre) where formal and practical training in building work is given. (This centre, formerly run by the Johannesburg municipality now falls under the West Rand Bantu Administration Board). The only course offered at the school is a three-year practical and theoretical training in building work in preparation for the NTC I exam. At the end of the three years, the school arranges for its pupils to do the Bantu Building Workers' exam and those passing are offered employment with the building section of the West Rand Bantu Administration Board in Soweto.

The 250 boys at the school are all urban Africans (with section 10 rights) and must have passed Std. 6 to get into the school (they have mostly passed in the third class, since better qualified pupils go onto high school).

According to the Minister of Bantu Education, in March 1974 there were 13 similar trade schools in South Africa. It is planned to have at least one in every homeland.\(^{(11)}\) Of the 3 119 students enrolled at these schools in 1973, 621 were carpentry students, 651 were concreting/bricklaying and plastering students,
343 were training in plumbing and drainlaying and 57 in painting and glazing. (12) The duration of these courses is two after after Std. 6 (one year less than at the Vocational Training Centre because these students do not prepare for the NTC I). Many of these students take the Bantu Building Workers' practical examination at the end of this period. A Bantu Administration Board wishing to recruit Bantu Building Workers will therefore either promote learners whom they have employed, or recruit Bantu Building Workers on contract from the homelands.

During 1972 there were also 284 African long-term convicts under training. (13) Trade tests are conducted by the prison authorities.

The trade test to become a qualified Bantu Building Worker is normally conducted by Bantu Administration Boards in the following areas: West and East Rand, Vaal Triangle, Cape Peninsula, Cape Midlands, Port Natal, and in each homeland.

There are several signs that the rate of growth of this labour force is outstripping demand for their services by the building sections of the Bantu Administration Boards. The Boards are the major employers of qualified workers, since they do almost all the building work in the townships. The building section in Soweto, the largest in the country, employs only 250 Bantu Building Workers. The amount of work completed depends largely upon the amount of funds received from the Department of Community Development. For instance, in Soweto funds for building maintenance and repair usually total about R1 million annually, but funds for new housing fluctuate - apparently between R2-and R3-million in recent years. All other building work done by the WRBAB is on behalf of the private sector and depends on the flow of private funds (such as TEACH funds, employer hostels, etc.)

In the Western Cape furthermore, the virtual embargo on new African family housing since 1968 has severely curtailed building operations. Only 80 Bantu Building Workers are employed, mostly on maintenance work. No learners are employed. The construction of private employer hostels in the dormitory townships around Cape Town is currently being undertaken by private firms, using their own labour force.
Two other sources of employment for Bantu Building Workers can be indicated. Both are likely to increase their importance in the future. Firstly, there is the private sector. The skilled work being opened up to African workers in the Transvaal (Section 6.4.2) will provide Bantu Building Workers with their first chance to utilise many of their skills legally in the private industry. Moreover, rates of pay are competitive with those being offered in the townships (Section 7).

Secondly, employment opportunities exist in rural areas and in the homelands. It could be argued that the Bantu Building Workers' Act, like job reservation Determination No. 6, exclude all rural areas from its scope (Section 6.3.1), thus offering Bantu Building Workers the chance to do skilled work in these areas.

With regard to the homelands, one should remember that because building is a place-bound industry, it should show more rapid employment growth in the homelands than other industries. Furthermore, the absence of job colour bars in these areas could lead to an expansionary effect on the demand for their services.

6.3 Occupational Advancement of Coloured Building Workers in the Transvaal

6.3.1 Job Reservation Determination No. 6

Job Reservation Determination No. 6(1) reserved all "work" in the building industry in urban areas of the Transvaal and Orange Free State for Whites. "Work" was defined as all tasks in the industry excluding 90 unskilled and semiskilled jobs. These jobs thus remained open to Coloureds, Asians and Africans. Self-employed Coloured artisans were not affected by the Determination, but were debarred from employing other Coloured persons in skilled jobs.

Authority was delegated to the Divisional Inspector of Labour (Johannesburg) to exempt from the Determination Coloured artisans working in Coloured group areas. Such an exemption was granted soon after the Determination was made in order to build the Coloured housing estate of Lenasia. Built by the Department of Community Development using Coloured contractors and artisans, all artisans on the project worked under exemption. Coloured contractors
were allowed to operate without restriction in Coloured group areas. In practical terms, the burden of the reservation fell on Coloured contractors and employees who were not able to obtain work in Coloured areas.

The industrial tribunal did not reserve work in any of the rural areas of the two provinces. Since building work in rural areas consists largely of farm dwellings, outhouses, barns and general maintenance — work which is generally done by the farmer and his labourers — the industry's White artisan labour force in particular would not be affected by this exemption. It was thus decided not to reserve skilled work in these areas because of the small quantity of work, the administrative problems involved and the fact that they were already almost completely denuded of White building artisans.\(^\text{(2)}\)

The tribunal appeared to side with the Transvaal unions who were all strongly pro-reservation, and saw the small number of Coloured artisans as a competitive element keeping their members out of work. The tribunal heard evidence that certain firms in the Orange Free State were recruiting Coloured artisans in the Cape Province for work on specific projects, and that this was making it more difficult to compete with these builders.

The tribunal noted that this was happening to a far lesser extent in the Transvaal. In a memorandum to the tribunal, employers in this province said that the entry of Coloureds in the province was so small that legislation was unnecessary. However, the Determination was applied to this province as well.

The tribunal admitted to being swayed by economic considerations at the time in the two provinces — between 1954/55 and 1956/57 the money value of building work in the two provinces had fallen from £55,259,858 to £42,626,168. In evidence, the ASW reported an average of 70-80 members unemployed, although it was the only union to report unemployment.

Despite concrete evidence linking White unemployment to the entry of Coloureds, the tribunal proceeded with its recommendations. The Determination was promulgated in 1961 during the
worst of the 1960-1962 recession in the industry. As such it must have been a psychological boost to the White unions, and their members who wanted to safeguard the number of jobs in the industry. However, its real effect on White employment must have been marginal.

The Coloured, Malay and Asiatic Building Workers' Union produced a memorandum at the time pointing out that the approximately 550 Coloured and Asian building artisans in the two provinces could not be held to be threatening the position of the approximately 12 000 Whites.\(^3\)

6.3.2 The Utilisation of Coloured Labour under Determination No. 6.

There follows a long period - roughly from 1961 to 1970 - of uncertainty with regard to the position of Coloured labour in the industry. It appears that some Coloured artisans left the two provinces, or what is more likely, stopped being recruited by employers fearful of prosecution. According to a Department of Labour manpower survey, there were only 252 Coloured building artisans in the whole of the southern Transvaal in May 1956. The comparable figure for the Orange Free State (in 1958) was 254.\(^4\) According to the industrial tribunal, many of these artisans were only working on a project basis, having come from adjacent Cape towns like De Aar, Vryburg and Mafeking. The tribunal noted that these workers were due to leave once their contracts had expired. Thus the supply of Coloured artisans probably dwindled to those who were permanent residents in the area.

The Coloured, Malay and Asiatic Building Workers' Union was forced to disband in 1971 because of the reduced number of Coloureds in the industry. Its remaining members were asked to join the AUBTW.\(^5\)

It is probable that many of the permanent residents also left the industry. Coloured builders were only allowed to operate in Coloured group areas where the amount of work was probably erratic. The industrial tribunal stated that there were 55 Coloured builders in the whole Transvaal (32 on the Witwatersrand) on the records of the industrial council in 1959.\(^6\) However, in the mid-
1960's there were reports that the supply of Coloured labour had reached a stage where not enough Coloured builders and artisans were available to build Coloured housing in Coloured group areas.\(^{(7)}\) Since African artisans were forbidden to work in these areas (Section 6.2), the general practice was for White labour to be used on Coloured housing projects. This has apparently had the effect of increasing the rentals charged in economic housing in Johannesburg's Coloured group areas.

Theoretically, Coloured builders were still allowed to indenture Coloured apprentices after the Determination came into effect. The small number of Coloured builders together with the difficulty of finding work after qualification, however, discouraged prospective apprentices from entering the industry. It was estimated in 1956 that there were 48 Coloured and 1 697 White building apprentices in the urban areas of the southern Transvaal at the time.\(^{(8)}\) Figures quoted by the latest industrial tribunal show that in 1971 none of 2 054 contractors surveyed in the Transvaal had any Coloured apprentices indentured.\(^{(9)}\) This is significant because in the early 1960's the building trades were the only ones in the Transvaal admitting Coloured apprentices.

\subsection{6.3.3 The Relaxation of Determination No. 6}

At the official level, the earlier phase of job reservation was marked by attempts to comply with Determination No. 6. These included, inter alia, waiving by exemption the minimum education prescribed for White apprentices, an undesirable practice brought about by force of circumstances. In 1966 the parties to the industrial council negotiated the first of a series of fragmentation agreements in the industry.

By the end of the 1960's it became clear that the industry was critically short of White artisans, particularly in the bricklaying, plastering and painting trades. As noted, the artisan labour force had been depleted by roughly one-third at the end of the Sharpeville recession. Furthermore, by 1970 the industry had entered its second boom in six years, something the industrial tribunal could not have predicted when it made the Determination.
Determination No. 6 had frozen the industry's labour structure and gave employers no leeway to innovate in the use of Coloured labour as they had been able to do through industrial council bargaining (with automatic exemption from the Bantu Building Worker's Act). Clearly, the industrial tribunal laid too much stress on short-term employment conditions without giving the industry any flexibility in supplementing its labour force in the longer term. This was not considered by them. Section 77 (6)(b) of the Industrial Conciliation Act states:

"in making a reservation under this section the powers of the tribunal shall not be affected in any way by the extent to which persons of any race (i) are, at the time of the investigation ... employed or available for employment; or (ii) are likely to become available for employment, in the undertaking, industry, trade or occupation or class of work or in the area specified in the terms of reference". (10)

As has been pointed out:

"this provision could be interpreted to mean that work could legally be reserved for Whites even though there were no Whites in employment, available for employment, or likely to become available for employment in the industry". (11)

During March 1969 BIFSA proposed to the Department of Labour, on behalf of the relevant Master Builders' Associations, that the trades of bricklaying and plastering in the Transvaal and the Orange Free State be excluded from the scope of Determination No. 6. (12) The federation was told in reply that the industry should first explore the possibility of attracting more White workers to the industry. At this stage such a suggestion was regarded as totally unrealistic. In August 1970 BIFSA made a similar request to the Minister of Labour to re-investigate Determination No. 6, but the Minister replied that much could still be achieved by way of negotiation with the unions to bring about job re-classification. (13)

In February 1971, when building development was at a peak along the Witwatersrand, the Minister of Labour called a meeting with the parties to the industrial council in the Transvaal and announced that he had granted an exemption from the provisions of Determination No. 6. (14) The exemption would allow Coloured brick-
layers and plasterers to work in the private building industry on the Witwatersrand and in Pretoria under certain conditions. One condition was that all applications for exemption had to be made to the Department of Labour, which would consider every application on merit. The exemptions subsequently granted were often only for the time-span of one project. They were furthermore subject to the conditions that employers were to continue efforts to recruit and train Whites, that Whites and Coloured people must work separately as far as possible, and that no White could work under the supervision of a Coloured person.

By 20th April 1971, two months after the exemptions had been announced, the Minister of Labour stated that 22 Witwatersrand employers had applied for permission to employ 292 Coloured bricklayers and plasterers whilst 3 employers in Pretoria wanted 48 workers. In 1974 it was announced that as many as 1 369 Coloureds were already working under exemption from Determination No. 6. This is both an indication of the shortage of White labour and the willingness of employers to use Coloured artisans.

On 15th August 1973, after further representations from BIFSA, the industrial tribunal received a directive from the Minister to investigate the operation of Determination No. 6. The Minister of Labour accepted the tribunal's findings, which recognised the efforts on the part of BIFSA to augment White skilled labour supplies. They also concluded that the demands of economic growth made it impossible for the industry to continue to rely solely on White skilled labour. The tribunal's report concluded:

"the Tribunal has ... come to the conclusion ... that the aforementioned efforts are not sufficient to make it possible to provide for the future of the industry if the latter has to rely on Whites only for skilled labour. The Tribunal is therefore of the opinion that there is sufficient justification now for granting members of other races freer access to the field of skilled work in the industry, providing this can be done on a strictly controlled basis". (17)

The tribunal's recommendations were implemented by the Minister of Labour through job reservation Determination No. 28. The new Determination replaced the two previous Determinations - Nos. 6 and 13 - applying to the building industry. The major pro-
visions of Determination No. 28 which became legally binding on 28/7/1975, were that, with the exception of Rustenburg and Pietersburg in the Transvaal and Richards Bay in Natal, job reservation as between White and Coloured was lifted in all rural areas and confined to municipal areas within the jurisdiction of industrial councils. On the basis of this reasoning, job reservation was abolished totally in the industrial council areas of Albany (Grahamstown) and Queenstown. (18) In the urban areas (which thus include Rustenburg, Richards Bay and Pietersburg), where reservation continues to be applied, the Determination states that all skilled work is still reserved for White persons:

"provided that such work may nevertheless subject to the provisions of paragraph (a), be performed by an employee who is not a White person, providing such employee - (aa) is a Coloured person, and (bb) is a skilled artisan - (i) in the specified class of work assigned to him; or (ii) in any of the classes or work in respect of which he acts in a supervisory capacity in the case of a general foreman, foreman or leading hand; or is deemed to be a skilled artisan by any Industrial Council for the Building Industry in terms of any Act". (19)

Reservation is virtually confined in those areas where it continues to be applied to prohibitions on replacement of Whites by Coloured people, the employment of Coloured people in a supervisory capacity over Whites and the employment of Coloured people as artisans unless they have either gained artisan status or are in the process of gaining such status, e.g. through apprenticeship.

The main effect of Determination No. 28 is to scrap job reservation as between White and Coloured in rural areas (the prerequisite that Coloureds be certified as skilled artisans before they can practice does not apply to rural areas), whilst in urban areas it effectively extends to the Transvaal and Orange Free State the more liberal approach to job reservation operating in the Cape and Natal. Country-wide uniformity thus prevails currently between White and Coloured artisans. The Determination also means that Coloured people may now be trained through all the channels in the two northern provinces previously open to Whites, including apprenticeship. Moreover, the anomaly in the Cape Province and Natal where Coloureds could be indentured as apprentices in reserved trades but where their employment after qualification was subject
to exemption, is now removed. (See Section 8.3.1).

The position of African workers, as controlled by the Bantu Building Workers' Act, was not affected in any way by Determination No. 28.

By the end of the 1960's it is possible to get a clearer picture of the number of Coloureds employed in the industry, and it appears that the demand for Coloured labour had risen strongly from where it had begun to languish in the mid-1960's. The industrial tribunal investigating Determination No. 28 found that on 25/6/1971, 4.2 percent of all skilled workers in the employ of 2 054 building firms in all urban areas of the Transvaal were Coloured, whilst this figure was a surprisingly high 22.1 percent for 135 employers in the Orange Free State (absolute figures = 457 and 210 respectively). (20) By November 1974 there were 664 Coloureds working under the jurisdiction of the Southern Areas Committee. (20a) They constituted 5.3 percent of the artisan labour force in this area. The long-term position of Coloured labour in the industry is discussed in Section 6.3.5.

6.3.4 Trade Union Opposition to Determination No. 28

The exemptions from Determination No. 6 and subsequent promulgation of Determination No. 28 met with strong opposition from the Blankebouwerkersvakbond. The general secretary of the union referred to Determination No. 28 as a "sell out" and "a radical change in government policy". (21) The aim of the union was to fight the entry of Coloureds and Asians "with every weapon at our disposal". (22)

When the exemptions to Determination No. 6 were announced in 1971, the AUBTW had sided with the BBV in its opposition to the exemptions, but later that year the general secretary of the AUBTW announced that they "decided to break from the attitude of the BBV because they were too radical". (23) The ASW has supported the AUBTW in this regard. Thus the BBV has been without support in its opposition to the employment of Coloureds.

The BBV has also taken a militant stand against the
redetermination. When the exemptions were first announced in 1971, the general secretary appealed to his members to down tools when the first Coloured workers appeared on building sites. (23a)
The union also organised a protest meeting over the industrial tribunal's recommendations: however, it was only attended by 260 members of the union. (24)

The BBV has for two reasons opposed the entry of Coloured workers. The first is the alleged reduction in bargaining power of the unions following the entry of Coloureds to the labour force. Gert Beetge, general secretary of the BBV, has argued that the entry of Coloureds to the ranks of the skilled, forces down wages. He has said:

"Every time we negotiate for higher wages the Master Builders remind us of the composition of the building industry's working population - 1 500 Coloureds to 12 000 Whites in the Transvaal, Asians outnumbering Whites two to one in Natal. And employers refuse to pay higher wages to non-Whites .... They can exist on lower wages and they're prepared to do so". (25)

This is a justifiable fear, probably shared by the other unions. There have consequently been attempts on the part of the unions to try and control the entry of Coloureds to the industry.

The BBV has also opposed the entry of Coloureds on the grounds that it will undermine the prestige of the trades practised by its members. A spokesman for the union, at the time when the government was considering granting exemptions to Coloured workers, said that:

"We are proud of our status and want to keep it ... and our standards will obviously be lowered with the employment of Coloureds as artisans". (26)

The BBV has, for the above reasons, preferred the implementation of an operative system on a sliding basis to ease the industry's skilled labour shortage. Firstly, this system would have the advantage of adjustment according to the needs of the industry (see Section 6.4.2.2) rather than the entry into the union of Black workers with the possibility of undercutting White artisan labour at the bargaining table. Secondly, by grading the Black workers as semiskilled - no matter how skilled the work in fact would be - the status of union members could be protected.
The different objectives that the three unions have had with respect to the entry of Coloureds can be partly explained by differences in their constitutions. The AUBTW and ASW, being multi-racial, both admit Coloured and Asian members and their policy is one of protecting the artisan (of whatever colour) against the encroachment of semiskilled workers. Non-White artisans were to be admitted at the rate for the job, and they opposed further fragmentation and preferred the lifting of job reservation restrictions.

The two unions also had membership motives in their support for the removal of restrictions. In June 1971 the AUBTW was reported to have 135 Coloured members in the Transvaal, and to be actively recruiting more Coloured members. The union has also gained certain members from the defunct Coloured, Malay and Asiatic Building Workers Union. In July 1975, the general secretary of the AUBTW stated to the writer that the union had 300 Coloured members in the Transvaal. It would therefore appear that any significant inflow of Coloured artisans on the Witwatersrand could further increase the size and bargaining power of the two multi-racial unions vis-a-vis the BBV, hence it is in their interests to grant freer access to Coloureds into the industry.

Unions have two weapons to control the entry of Coloured artisans. The first is through the admission to apprenticeship. The BBV has the power to impose a ban on its members training Coloured apprentices. This has been done by the White artisan union in the motor industry. In discussions with the general secretary of the industrial council and trade union leaders, it was stated that the BBV had not issued a directive to its members prohibiting them from training Coloured apprentices. The union certainly does not have this prohibition at its Durban branch, where the racial composition of apprentices has changed dramatically in recent years (see Section 8.4.4).

Even if this ban were imposed, artisans from the other two unions (as well as non-unionised tradesmen) will still be able to train Coloured apprentices. In its submissions to the latest industrial tribunal, BIFSA stated that it had the full support of both the AUBTW and the ASW to indenture Coloureds in terms of the Apprenticeship Act in the Transvaal. As the number of Coloureds in these unions increases, this will decrease further the difficulty
Coloured youths have in becoming indentured. It is perhaps significant in this regard that when the latest industrial tribunal made its investigation, it found 15 Coloured apprentices in the employ of 2,054 contractors in the Transvaal in June 1973. Of these, 10 were apprenticed in the painting trades, whilst 4 were apprenticed in electrical wiring.

It would appear that the BBV regards a high minimum wage as a potential defence strategy by the union to maintain a White hold on artisan work in the industry. In October 1973 the general secretary stated that he would be prepared to allow Black artisans into the industry provided that minimum wages were raised from R1,40 to at least R2,00 and the rate for the job strictly enforced. There is evidence which strongly suggests that the union has pursued this policy at the latest negotiations in the industry (cf. Section 6.4.3.2).

6.3.5 Long Term Employment Prospects

If it is assumed that, on balance, trade union policy will have a neutral effect on the employment of Coloured artisans and apprentices, there remain only two important barriers which may hinder the absorption of more Coloureds into the industry.

The first is the hiring practice of employers. It would appear that employers discriminate strongly in favour of Whites when it comes to hiring artisans. The latest industrial tribunal was apparently strongly influenced in its final recommendations by such evidence from BIFSA:

"The Federation pointed out in the aforesaid letter that it by no means intended to leave the industry's existing White artisans in the lurch and that it was indeed prepared always to give Whites preference when it came to employment. Moreover, the Federation did not intend abandoning or relaxing its efforts to recruit Whites, for whom there would always be sufficient jobs of a supervisory nature as well as jobs in the more popular fields of work". (32)

It is perhaps this labour preference which will ensure the 'entry on a strictly controlled basis' to which the industrial tribunal referred. This contention is supported by the fact that BIFSA requested that the 1971 exemption be granted only in the wet trades where shortages were crippling — and where employers were in no
position to exercise a racial bias in recruitment. Thus Coloured workers in these trades have had beneficial factors working in their favour.

The tenor of the new Determination reinforces this attitude. The Determination still reserves all skilled building work for Whites in principle (cf. section 6.3.3). There is also the caveat in the Determination that Coloured labour

"is not at any stage and in respect of any work appointed, or permitted, to act in a supervisory capacity over a White employee". (33)

Thus, the entry of Coloureds into the industry will be hindered by employers' practice of first ensuring (e.g. through job advert responses) that no Whites are available for employment before recruiting Coloured staff. Certain beneficial forces will ease this entry of Coloured workers, e.g. their lower wage demands and the fact that no maximum ratio of Coloured workers is laid down in Determination No. 28.

The second factor affecting the utilisation of Coloured labour in the industry may be the shortage of Coloured labour in the Transvaal itself, i.e. even if the demand for Coloured labour should increase substantially, there may be supply bottlenecks. The latest industrial tribunal did not:

"foresee that, as a result of some relaxation of work reservation for which provision is being made in the proposed Determination, there should necessarily be a considerable inflow of Coloured persons to take up skilled jobs in the industry in the Republic, except perhaps to a limited degree in the Western Cape and also in Natal, where there are naturally large concentrations of Coloured persons and Asians respectively ... As far as ... both Coloured races in the Transvaal are concerned, there are housing problems and other restrictive factors in the light of which a sudden large-scale exodus of Coloured persons from other regions to the said province can hardly be foreseen". (34)

The point here is that the Transvaal does not have a big enough Coloured population to support a large building artisan labour force - as does the Cape Province or Natal - which could gradually replace White artisans as they move out of the industry. Even a
significant inflow of Coloured artisans - working on a temporary basis - from other provinces is unlikely because of the accommodation shortage.\(^{(35)}\)

Certain of the barriers on the supply side could be partially overcome. Firstly, the housing bottleneck could clearly be eased over a longer period. Secondly, a small measure of compensation may be that a number of Coloureds presently employed in other Witwatersrand industries may choose to become apprenticed in the building trades. In 1968, for instance, there were estimated to be 400 Coloured apprentices undergoing training for the furniture industry at the Johannesburg Vocational School.\(^{(36)}\) Coloured artisans have traditionally predominated in the furniture, footwear and leather industry in the Transvaal.\(^{(37)}\) In other industries, such as engineering, their progress into the artisan category has been blocked.\(^{(38)}\) One social survey\(^{(39)}\) of a Coloured township in Johannesburg in 1964 found that only 20.4 percent of the male working population was classified as skilled, whilst 53.4 percent were classified as either semiskilled or unskilled.

In the long-term, the need for Coloured labour in the industry could be reduced. Coloureds are entering the industry as skilled artisans, while the whole dynamics in the Transvaal is toward the upgrading of semiskilled (cheaper) Africans. Thus, in the long-term perspective, the introduction of Coloured artisans is quite insignificant - it is merely an attempt to postpone the real adjustment, which will be more far-reaching.

6.4 African Labour Utilisation in the Private Building Industry

6.4.1 Changes in the Labour Structure before 1974

6.4.1.1 Exemptions from Determination No. 6 and the Bantu Building Workers' Act

Job reservation Determination No. 6 only reserved two semiskilled jobs for Whites - the operation of power driven cranes and lorries over 3 tons in weight.\(^{(1)}\) This was despite the fact that the Transvaal agreement of the time set the wages for these two jobs at a low wage such that they were nominally non-White. The agreement classified vehicle drivers into 3 categories for wage purposes: - drivers of vehicles (a) up to 1 ton, (b) 1 ton to 3 tons, and (c) 3 tons to 5 tons. The reservation of these jobs
is significant because they are two of the most highly-paid semi-skilled jobs in the industry.

The evidence tendered to the earlier industrial tribunal was that the work of lorry driving was increasingly being done by Blacks. The tribunal felt that unless the process was stopped, the Whites still remaining in these jobs would be ousted. Table 23 (based on a questionnaire dispatched by the tribunal) shows the declining proportion of Whites in the driver category in the firms surveyed in the Transvaal from 1955 - 1958. The tribunal argued that unless this process was reversed, the interests of semiskilled Whites would be harmed.

<table>
<thead>
<tr>
<th>Year</th>
<th>White %</th>
<th>Coloured/Asian %</th>
<th>African %</th>
<th>Total %</th>
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<tbody>
<tr>
<td>1955</td>
<td>28,2</td>
<td>15,6</td>
<td>56,1</td>
<td>100</td>
</tr>
<tr>
<td>1956</td>
<td>25,2</td>
<td>15,4</td>
<td>59,3</td>
<td>100</td>
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<td>1957</td>
<td>22,6</td>
<td>15,9</td>
<td>63,3</td>
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</tr>
<tr>
<td>1958</td>
<td>19,5</td>
<td>15,5</td>
<td>64,8</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Verslag en Aanbeveling van die Nywerheidshof ens. 10/7/1959, p.18.

Since Whites were driving mainly the heavier class of vehicles, it was decided to reserve the driving of vehicles of over 3 tons in weight only.

Subsequent events indicate that there were, in fact, no semiskilled Whites available for this work. At the wage rates normally offered for this job, employers found it impossible to recruit enough Whites. As early as May 1962 employers in Bloemfontein were granted an exemption to allow Africans to drive vehicles of an unladen weight not exceeding 7 700 lbs. The same exemption was granted to employers in the Transvaal in August of the same year. (2) Although this reservation was not removed as between
White and African in Determination No. 28, this restriction has nevertheless largely gone by default. Apparently, three firms surveyed during the course of the field-work stated that they did not require an exemption of any kind from the Department of Labour in order to employ Africans as drivers. The work of drivers is done exclusively by Africans in the industry today.

At an early date, the Minister of Labour also delegated authority to Divisional Inspectors of Labour to grant exemptions from Determination No. 6 to individual employers for one year at a time to let Blacks drive cranes if no Whites were available for the jobs (employers have to check on this at the Department of Labour). The exemptions were granted on condition that employers continue endeavours to recruit and train Whites for such employment.

A concerted effort has in fact been made by the organised industry, on behalf of employers, to recruit and train Whites as crane-drivers, in order to bring about the fullest possible compliance with Determination No. 6. In 1969 BIFSA devised a scheme in order to train Whites as crane drivers. The costs of the scheme were borne by the National Development Fund for the Building Industry and in October 1973 this scheme had already cost R2 800. The training was to be done on the premises of two major suppliers of cranes to the industry. MBA members were thereafter required to pay White crane operators 75 cents per hour during a two-week probationary period (this was in 1969) and thereafter R1.00 per hour. The minimum rate of pay laid down by the industrial council was much lower. Up to October 1973, only 143 Whites on the Witwatersrand applied for the scheme. Of these 89 were selected for training or employment, 22 failed to report for training, whilst 60 completed training and were placed in employment. Of these, 10 resigned, 37 deserted and 6 were dismissed for valid reasons, leaving the industry with a net gain of a mere seven.

Since 1971 the reservation of this operation has thus gradually gone by default and the Secretary of Labour announced in May 1971 that exemptions would be granted for an indefinite period. BIFSA has stated that it is not aware of any one instance where the Department of Labour has been in a position to offer the services of a White operator to replace a Black already in employment. There are still some White crane drivers
It may be noted here that the relative ease with which these exemptions have been granted has been partly due to the policy of the Department of Labour to grant exemptions where they have had the backing of the industrial council. This has influenced the industry to attempt to extend industrial council control in recent years. \(^{(8)}\)

Certain changes have also been made to the Bantu Building Workers Act which have opened skilled work to Africans in urban areas other than in the townships. As we have seen, section 14 of the Act stated that no employer may, without the written permission of the Minister of Labour, employ an African upon skilled work in the private building industry in urban areas. The understanding between the Department of Labour and the building industry is that skilled work for the purposes of the Bantu Building Workers Act would not be interpreted to mean anything other than skilled work as defined by the industry in its industrial council agreements. Thus the adaptation to change through collective bargaining is not subject to formal exemption in terms of the Act as is job reservation (thus slowing the process down). \(^{(9)}\)

According to the director of BIFSA, the Minister of Labour told the industry in 1963 that whatever could be agreed to with the unions as regards job advancement, would be automatically ratified in terms of the Act.

The Bantu Building Workers Act was amended in 1955 (Act No. 60 of 1955) and a new section - section 15 - prohibited the employment of Africans on skilled work outside the private building industry in urban areas other than in Bantu areas. \(^{(10)}\) The intention of section 15 was to prohibit Africans who had acquired skills from using them to do, for example, small repair and maintenance jobs that fell outside the scope of the industry (e.g. for private home-owners). Exemptions have subsequently been granted from section 15 and its blanket prohibition: (a) all persons are exempted (building firms included) with respect to the construction of garden walls and other garden features, pathways and drives, stone walls and servant's quarters, (b) the owner-occupier of a house is exempted from the Act with respect to the renovation, repair and alteration of (but excluding additions to) any part of a house or
flat, and (c) the owner of a business is exempted with respect to
the renovation and maintenance of any building used by the firm
provided that the African is in the regular employ of the firm and
is not hired solely for that job. (11) The private building industry
was not affected in any way by exemptions from section 15.

The exemption has opened many avenues of skilled employ­
ment to Africans, particularly in the field of renovation and
maintenance. Although not a commonplace sight in the Cape, it is
common in Johannesburg to see African builders working in suburban
areas, building garden walls etc. Some of these skills have been
acquired on-the-job at building firms, whilst other workers are
trained Bantu Builders. There is no wage-regulating machinery for
this work, and wages are determined through a private contract
between the employer and the worker.

6.4.1.2 Industrial Council Negotiations before 1966

Until 1966, the Transvaal building industry was one of
the few that had not undergone any radical structural change in its
labour force, in terms of a reclassification of work from skilled
to semiskilled labour. In evidence to the first industrial tribunal,
employers said that certain work had been reclassified as unskilled
in industrial council agreements because artisans were inclined to
see it as boring. (12) In the Transvaal agreement of 4/8/1939, only
8 unskilled and 5 semiskilled tasks were listed in the industry
whilst in the agreement of 19/3/1958 there were 75 unskilled and 11
semiskilled tasks. (13) The industrial tribunal saw the increasing
number of semiskilled jobs as evidence of the weakening opposition
of the unions to employer demands. However employers argued that there
were still many time-consuming and unnecessary tasks listed as
artisan's work.

The structure of the industry has thus been traditionally
constituted of skilled labour in the one extreme and unskilled
labour in the other extreme. The traditional crafts of building
artisans in this country, till recently, have remained almost intact
since the beginning of the century, when the labour structure of
the industry was epitomised by the bricklayer and his 'handlanger',
or unskilled helper, the latter doing all unskilled work on site.
In an industry such as building it is difficult to describe and list all unskilled jobs. Determination No. 6 was able to list as many as 90 unskilled tasks in the industry, ranging from guarding of premises, loading and unloading of materials to mixing concrete by hand or machine (under supervision), washing down brick and concrete with scrubbing brushes and assisting in various tasks. In several cases, the performance of these tasks by unskilled workers was conditional upon White supervision. Many of these tasks are associated with the carrying of materials and jobs ancillary to artisan work. Although the Transvaal agreement made no reference to race there was a nominal classification of work by wage rate with the effect that skilled work was implicitly reserved for Whites, whilst semi- and unskilled work was allocated to African labour. Determination No. 6 followed this classification of work.

Much of the semiskilled work in the industry today was allocated to African labour before the series of fragmentation agreements concluded in the industry. Perhaps this can be best explained with reference to the five major groupings of African workers on big building sites - excavation gangs, scaffolding gangs, shuttering gangs, concreting and stripping gangs. The scaffolding gang is responsible for erecting the platforms on which carpenters work when building and measuring shuttering, and also by plasterers when working on higher walls. The shuttering gang is responsible for building the tray-like structure (on the columns) with steel plating, into which concrete is poured, i.e. they are responsible for the placing and wedging of supports. They usually work under the supervision of a carpenter who does the measurements to ensure that the structure is straight. The concreting gang is responsible for the pouring of concrete into this giant tray, i.e. guiding the crane or concrete pump, placing of concrete and smoothing it down with flat sticks. The stripping gang is responsible for the removal of plates and supports when the concrete has hardened.

Among the tasks classified under operative grade 5 in 1972 were the employees in charge of: (a) labourers levelling and screeding concrete (under supervision), (b) labourers mixing concrete, (c) labourers erecting scaffolding (under supervision), (d) labourers stripping shuttering and (e) labourers fixing QC decking plates. In 1966, when there were only 2 operative grades,
these five jobs were among the 10 tasks classified as operative grade 2.\textsuperscript{(15)} Section leaders in charge of these operations are classified under a higher operative grade. These five jobs are considered to be amongst the most highly skilled on site (see Section 6.4.4 on African worker training). One firm ranked its section leader in charge of shuttering with the site bossboy. The foreman said that he was doing work which could virtually be classified as 'skilled' - the only task which he could not do was plumbing (which had to be done by the carpenter).

In addition to the above jobs, the work of driver, hoist operator and dumper driver was all allocated to African labour before the series of reclassification agreements in the 1960's. The work of crane driver and lorry driver (over 3 tons) was, as we have seen, subject to exemption by the Department of Labour.

By 1965 there were signs that the pressure in the labour market was at this stage already leading to contraventions of legislation.\textsuperscript{(16)} In a memorandum drawn up in 1965, the MBA representatives on the industrial council stated that the shortage of labour meant that 'radical changes in the traditional labour structure' were imperative. The memorandum continued that Whites simply were not available in sufficient numbers and even improvements in pay and working conditions could not entirely solve the problem.\textsuperscript{(17)}

The four unions on the industrial council stated, in a replying memorandum, that:

"a radical change in the traditional labour structure is not necessary, but an improvement in the working conditions of the building industry is".\textsuperscript{(18)}

The point here seems to be that shortages are artificially created by management who refuse to increase wages in White categories in order to be able to reclassify the job. An important implicit assumption made here by the unions, it should be noted, is that skilled wages should be adjusted to respond to conditions in the White labour market alone. It implies no realisation of the wage elasticity of supply of White artisans. Etheredge suggests that this attitude has created a serious lag in other industries as well:
Either there is a shortage or there isn't and very early on in discussions between management and unions common ground will have to be reached on this point so that meaningful negotiations can proceed". (19)

6.4.1.3 The 1966 and 1969 Agreements

The first significant fragmentation agreement in the industry was published in February 1966. The gist of the agreement was that artisans would be relieved of all routine skills still defined as artisan's work in the industrial council agreement. The tasks considered to be artisans' work were thus listed in the agreement.

It appears that at the negotiations a wide range of operations - "hundreds" according to one BIFSA official - were removed from artisan work schedules as a result of this process. It was deemed to be an impossible task to prescribe rates of pay for each and every job. Tasks readily appearing as operative work were paid as such. Anything else was paid unskilled wages, with the proviso that the unions could raise any task overlooked and have it classified as semiskilled work.

Job reservation Determination No. 6 was relaxed to enable the agreement to be implemented. The Department of Labour stipulated that (for one year), exemption would be given from the Determination to allow Blacks to perform any work in the industry other than that specified in the definition of artisan. However, in practice, the exemption has been granted indefinitely. (20)

In 1966 the industrial council allocated all work in the industry into an artisan grade, two semiskilled grades (operatives grade 1 and 2) and one unskilled grade. In only three of the 20-odd designated trades in the industry were important concessions made by the unions, i.e. concessions which led to the fragmented skill being reclassified as semiskilled rather than unskilled. In bricklaying, whereas an operative grade 1 had previously been allowed to lay outdoor paving in slate, the agreement now permitted them to do it in granite and stone as well. The operative grade 1 was also allocated the work of jointing (cleaning away the mortar between two courses of bricks). (21)

In plastering, operatives grade 1 were allocated the
operation of 'a rotating solid disc-type machine for screeding of cement or granolithic floors when such machine is used preparatory to further finishing by an artisan'. Prior to the 1966 agreement, the only other semiskilled job in plastering was the supervision of labourers in the levelling and screeding of concrete (operative grade 2). The only other semiskilled workers registered as operatives grade 2 in the agreement were various section leaders. \(^{(22)}\)

The painting trade - because of the routine nature of the work - lent itself to job dilution. Artisans' work was re-defined as excluding "the application of the primary coat or where a primary coat is not applied, the application of the first coat of paint on all unpainted surfaces". \(^{(23)}\) The work was, however, only graded as semiskilled in September 1968.

Officials of the industrial council and BIFSA, as well as employers, were consulted in detail about the impact of the bargain. They were unanimous that - given the shortages of labour at the time - the concessions made by the unions were of no practical help in alleviating the stresses in the labour market at the time. Given that the main work of bricklayers and plasterers is the laying of bricks and the application of plaster to walls respectively, concessions in these trades were not practical. The 1960 agreement listed only three tasks under operative grade 1 and ten under operative grade 2.

According to news reports, one immediate effect of the implementation of the agreement - which led to White artisans receiving substantial increases in pay and fringe benefits - was the sacking of some White artisans. \(^{(24)}\)

In 1969 further jobs were opened to Blacks in the industry as the result of industrial council negotiations. Operative work was divided into six grades, instead of the previous two, with operatives grade 1 getting the highest semiskilled wage. In the bricklaying trade, African workers were now allowed to operate a carborundum saw for brick cutting. In the painting trade, operatives grade 2 could now do assorted things like applying lime wash to all surfaces, etc. Certain operations were also released in plastering and other trades. \(^{(25)}\)

The most significant work opened to Africans in the
agreement was blocklaying ("blocks" are approximately 1 cubic foot in size, made of cement and used in place of bricks). According to a government notice signed by the Minister of Labour in February 1968, blocklaying did not require an exemption from the Bantu Building Workers' Act. The laying of blocks was not defined as a skilled trade, according to the announcement, because the work done and the instruments used were not considered as artisan's work. An artisan, however, would be used to set up a metal frame (or "jig") on the foundations, into which the blocks would be slotted by semiskilled labour. The jig is subsequently removed, and merely acts as a guide for the semiskilled worker.

News reports stated that these concessions were important because blocklaying was less skilled labour-intensive than bricklaying and was a substitute in the construction of houses. Apparently Bester Homes, who were building hundreds of homes for ISCOR at Newcastle, were the first to apply this method.

In the 1969 agreement, blocklaying was allocated to operatives grade 6. The task consisted of "laying of blocks not bedded in mortar or mastic", or the laying to a jig of blocks bedded in mortar or mastic (where no artisan's tools, i.e. trowels, are used in both cases). The blocks referred to are of the interlocking kind used for wall construction. In an amendment to the Labourer's Agreement made in 1970 the laying of blocks in the construction of concrete floors and concrete roofs was opened to operatives - again where no artisan's tools are used.

6.4.1.4 The Impact of Negotiations on African Semiskilled Employment.

We may enquire what impact the reclassification agreements had on semiskilled employment up to 1974. We should note whilst the 1966 Main Agreement listed 13 semiskilled jobs (under operative grade 1 and 2), the 1972 Non-Artisan Agreement already made provision for roughly 50 semiskilled jobs (under 6 operative grades). With the shortages of White artisan labour increasing all the time, we would expect (i) an increase in the ratio of operatives to artisans (as White artisans were left with more and more supervisory work) and (ii) an increase in the absolute number of operatives.
Table 23 is the most detailed information available on semiskilled employment in the industry. It shows the number of workers in each grade in the industry from 1970-1974. Figures for operatives grade 5 and 6 were unobtainable but apparently they are the smallest operative grades. The information in Table 23 supports the hypothesis that the ratio of semiskilled:artisan employed should have increased. Between 1970 and 1974, this proportion rose substantially from 14,9 percent to 38,4 percent. In fact, the absolute number of operatives also increased – from 1 692 to 3 062 (Table 23).


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<td>Artisan</td>
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<td>11370</td>
<td>10964</td>
<td>9663</td>
<td>10050</td>
<td>9763</td>
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<td>112</td>
<td>112</td>
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<td>(White)</td>
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<td>233</td>
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<td>1573</td>
<td>2271</td>
<td>1141</td>
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<td>1748</td>
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<td>425</td>
<td>426</td>
<td>353</td>
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<td>Oper.</td>
<td>220</td>
<td>160</td>
<td>26</td>
<td>700</td>
<td>820</td>
<td>899</td>
<td>771</td>
<td>+250,4</td>
</tr>
<tr>
<td>Grade 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>1692</td>
<td>2011</td>
<td>2937</td>
<td>2356</td>
<td>3127</td>
<td>3114</td>
<td>3062</td>
<td></td>
</tr>
<tr>
<td>Ratio</td>
<td>14,9</td>
<td>17,6</td>
<td>26,7</td>
<td>24,3</td>
<td>31,1</td>
<td>31,8</td>
<td>38,4</td>
<td></td>
</tr>
<tr>
<td>Oper.: Art. (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unskld</td>
<td>33119</td>
<td>34706</td>
<td>40777</td>
<td>31515</td>
<td>41506</td>
<td>37812</td>
<td>37293</td>
<td>+ 12,6</td>
</tr>
<tr>
<td>Ratio</td>
<td>5,1</td>
<td>5,7</td>
<td>7,2</td>
<td>7,4</td>
<td>7,5</td>
<td>8,2</td>
<td>8,2</td>
<td></td>
</tr>
<tr>
<td>Oper.: Unskld (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Industrial council stamp sales.

In order to conclude that fragmentation agreements have
opened up semiskilled jobs to Africans, we need to look at the ratio operative:unskilled labour. If the proportion operatives: artisans has increased, then it should also be true that the proportion operatives: unskilled workers should also have risen. This proportion did show a small increase - from 5.1 percent to 8.2 percent - but a substantially smaller one than the operative:artisan one. Furthermore, the de facto proportion operatives:unskilled probably fell sharply, since the de facto growth in unskilled employment was probably far greater than that shown in Table 23 (See Section 5.1.2). Thus the evidence in this regard is inconclusive.

However, the large absolute increase in the number of operatives between 1970-1974 must also be explained. In order to conclude that this has been due to increased semiskilled employment opportunities made available by job dilution, we need to know more about the jobs classified under each grade. Until 1975, Black crane drivers were classified under operative grade 1 whilst drivers of trucks over 3 500 kgs were classified as operatives grade 2. Amongst the jobs classed as operative grade 4 were dumper driving, and hoist operating. All these were common jobs on high-rise building sites. The point here is that whilst the increase in operatives in certain grades is quite high, e.g. operatives grade 2 and 4 show large increases, this is largely attributable to the increase in the number of hoist operators, dumper drivers and truck drivers used.

There is thus no conclusive evidence that the increasing absolute number of operatives and the increasing proportion operatives: artisans shown by Table 23 has been due to the industry's increasing use of operatives to relieve artisan shortages. There are two feasible explanations for this. Firstly, the package of skills reclassified at the fragmentation agreements were not a significant proportion of artisans' work and this prevented a further increase in the ratio operative:artisan. Many important artisan functions were also being channelled into work contraventions by unskilled labourers during this period (see Section 5.3.4). This prevented an increase in the de jure ratio operatives:artisans.

Secondly, the practice of one firm surveyed was to classify its workers as unskilled and then pay them on a pro rata basis for semiskilled work performed. This was done because many of
the jobs reclassified did not occupy operatives full-time. The industrial council agreement lays down that employees who on the same day perform two grades of work, where the work is performed for three hours or less at the higher grade, be paid on a pro rata basis. (32) However, the large number of job reservation contraventions at the time probably influenced some firms not to pay semi-skilled rates at all.

Finally, to get a broader perspective of the progress that has been made in the reclassification of artisan work in the building industry, we may compare the ratio operatives:artisans in building to the higher proportion in the whole industrial sector. Table 24 shows that the latter ratio was roughly 8:1 in 1969 (Column 4, Table 24).

Table 24: Racial Composition of Industrial Labour in South Africa in 1969. (‘000).

<table>
<thead>
<tr>
<th>Racial Composition %</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) (2) (3) (4) (5) (6) (7)</td>
</tr>
<tr>
<td>White Colour./ Asian</td>
</tr>
<tr>
<td>Artisan/ Apprent.</td>
</tr>
<tr>
<td>Supervisor</td>
</tr>
<tr>
<td>Subtotal</td>
</tr>
<tr>
<td>Artisan/ Supervisor</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>Semi-skilled</td>
</tr>
<tr>
<td>Subtotal</td>
</tr>
<tr>
<td>Operator/Semi-skilled</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

We note that, even in 1974, the building industry was well behind the whole industrial sector in 1969. The inference here is that because there have been no traditional work patterns in many manufacturing industries, many new industries - helped by technological progress - have de novo been able to establish occupational divisions which are still being implemented in the building sector. In the following section further important changes in this regard are discussed.

6.4.2 The 1974/1975 Agreement.

6.4.2.1 Background

The negotiation of the 1974/75 agreement came about as a result of the failure of the two previous agreements to bring any meaningful relief to employers. By contrast, when the new agreement was publicised, it was stated that "the settlement is one of the most important agreements that has been made in the industry for a long time". An MBA spokesman described it as "a major breakthrough, affecting every building trade, with the possible exception of painting, in which considerable concessions have already been made".

Under the normal negotiating procedures of the industry, the industrial council calls for proposals before the new agreement expires. The Transvaal industrial council called for proposals in August 1972, and the first were received in November 1972. Given the demands of employers for substantial concessions from the unions and union reluctance to fragment the trades any further, the general secretary of the industrial council realised that negotiations would be difficult. Thus, a small two-man sub-committee was appointed (Gert Beetge representing the four unions). After making a report, the main negotiating committee got together. At the end of 1973 it was reported that tentative agreement had been reached. It was in fact not until October 1975 that the agreement was finally ready for publication - after almost three years of negotiations.

6.4.2.2 Content of the Agreement

The agreement rearranged all semi-skilled jobs in the industry into three operative grades - operatives grade 1 to 3.
with operatives grade 1 receiving the highest wage. The general secretary of the industrial council stated in discussion that the industry had switched back from 6 to 3 operative grades for "administrative reasons". This clearly gives employers fewer categories into which they can pigeon-hole semiskilled workers and less leeway in distinguishing in pay between jobs. The implications of this will be discussed in Section 7.3.

Important aspects of artisan work - previously reserved - were re-allocated to operatives grade 1 in the agreement. In ten trades, important concessions were made by the unions: block and brick setting, carpentry and joinery, drainlaying, floorlaying, glazing, metal work, plastering, structural carpentry, stonework and tiling. In bricklaying, the agreement permitted operatives grade 1 to set, in mortar, blocks, bricks, slabs and/or stone in walling intended to be covered by plaster. This is a significant concession, since stockbricks (i.e. those covered by plaster) are 80 percent of all bricks laid. The agreement reserved for artisans "setting out; determining levels; ... plumbing angles; tuck pointing".

In plastering, operatives grade 1 were allowed to render material to rough surfaces, rule off and do preliminary finishing preparatory to final trowelling and final finishing by the artisan. In practice, this means that operatives will be able to do all plastering on walls whilst the artisans will merely come along afterwards and do finishing off, i.e. removing blemishes etc. with a steel trowel.

In structural-carpentry, operatives grade 1 were allocated the assembly of shuttering in the agreement, whilst artisans were left with the tasks of "marking out; setting out; plumbing and levelling of columns and beams; lining up of shuttering for concreting". In tiling, operatives grade 1 are permitted to apply mortar, cut and fix tiles, whilst artisans are responsible for setting out.

Without exception, all mechanical and repetitive work in the artisan's job was reclassified as semiskilled work, whilst artisans were implicitly only left with supervisory work.

One of the important features of the agreement is that
the employment of operatives in the industry is being controlled by an official ratio - operatives grade 1: artisans - laid down by the industrial council. This feature of the agreement is analysed within the context of employment safeguards in Section 6.4.3.1.

The agreement also reversed the industry's previous ban on two working practices in the industry - labour-only contracting and piecework. The Non-Artisan Agreement of 13/10/72 stated: "No employer shall give out work on a labour-only contract basis" and "the giving out by employers or the performance by employees of work on a piece-work basis is prohibited". (42a).

It was decided to legalise labour-only subcontracting in view of its widespread use in the industry previously. By controlling and monitoring the movements of these subcontractors, the industrial council could more easily check on the employment conditions of their employees and thus safeguard against labour exploitation. An onus is placed in the new agreement on main contractors to inform the council within seven days of the employment of a labour-only contractor. This includes details such as the exact location of the building site, etc. Furthermore, all labour-only contractors are obligated to register as such at the industrial council at the beginning of each year. (43)

The decision to re-introduce piecework was made for two reasons: the first is because a payment-by-results scheme makes payment dependent upon the amount of work completed. Thus the artisan is not paid per hour, irrespective of the amount of work done, which could help to combat the practice of scarce artisans turning in a poor productivity performance because of their scarcity value. The agreement also contains a minimum wage requirement, i.e. that the earnings of a pieceworker in toto exceed the minimum wage for artisans. (44)

The second reason for the introduction of piece-work is that labour-only contractors (who also work on a piece-work basis) have earned high wages, using African labourers to boost performance by allowing them e.g. to lay bricks. Thus artisans in regular employment did not have this freedom to use these Africans legally or to use piece-work systems while labour-only contractors did, giving
them unequal access to improved earnings. Thus the introduction of operatives and piece-work was strongly backed by some union members wanting the freedom to improve their performance.

6.4.3 The Bargaining Structure and the Agreements: An Assessment

6.4.3.1 Employment Safeguards

The series of agreements negotiated between 1960 and 1975 have also led to union demands for the backstop of a redundancy agreement. Implicitly these demands also include undertakings to the effect that White wages will not be reduced, Whites will not be sacked and that retraining facilities will be available to give Whites opportunities to move into higher-paid jobs.

One major fear of the building unions has been that major reclassification agreements have generally followed building booms, i.e. when conditions in the labour market are not as tight. To allay these fears, the Minister of Labour announced in 1968 that the Department of Labour was approving such agreements on condition that, should a recession take place, such jobs were to be reclassified as White.(45)

The 1975 Main Agreement made provision for a system of controlling (at industrial council level) the ratio of operatives grade 1 to artisans. We recall that negotiations released the most significant aspects of the artisan's job to operatives, e.g. the general secretary of the industrial council spoke of the "terrible problem" in negotiations over bricklaying because there was nothing substantial left to hand over except the actual laying of bricks. The agreement thus made provision for controlling the number of operatives in the industry.

The plan as developed(46) is that every three months the industrial council will ascertain the shortage of artisans — a ratio operatives grade 1 : artisans would be set in accordance with the shortage. Thus there will be a ceiling on the number of operatives to be employed. All firms have to get an individual exemption for each operative grade 1 employed (see following paragraph), whilst the total number of exemptions granted by the industrial council will be in accordance with the fixed ratio at the
time, as laid down by the industrial council.

The procedure, according to the latest agreement, is that every operative grade 1 employed must be registered with the industrial council within seven days of being employed as such, the onus being on the employer to send an application form to the industrial council. The industrial council can refuse an application or send a certificate of registration. It originally had the power to withdraw a certificate without notice, although this clause providing for immediate dismissal was vetoed by the Central Bantu Labour Board and the normal period of notice for the industry now applies. However, operatives grade 1 still have a rather insecure employment tenure in the industry.

Thus, it appears that whilst many skill clusters are negotiable on the part of the unions, this only applies to booms. In a slump the registered unions want to preserve such work for themselves. By 1976 the industry was in a recession with the consequent heightening of replacement fears.

The unions - as one of the parties to the industrial council - have part power in determining the number of operatives in the industry. This would lend weight to the argument that this operative system is not a forward-looking step but merely an attempt to protect union members against encroachment. The need for such controls became greater when the unions - under pressure from management - had to modify their concept of the rate-for-the-job so that inflated rates of pay were not perpetuated amongst operatives grade 1.

Another guarantee - this time in the form of a preferential employment agreement - was offered by the MBA. According to officials at the industrial council, this is not going to be written into the agreement but has been accepted as an industrial council resolution. The resolution states:

"The parties to the Council have agreed to guarantee preferential employment for a period of 20 years as from 1/1/1975 or until earlier retirement to all skilled employees except those working 1) under an exemption of any determination made by the Minister in terms of Section 77 of the Act, and 2) in trades into which persons registered in categories other
than skilled employees have been given an opportunity to assist through the ratio system". (47)

According to news reports, the industry stated at the time that it had a R1 million unemployment fund to guarantee full back pay to unemployed artisans for twenty years. (48) However, according to BIFSA officials I spoke to, unemployed artisans are only entitled to such pay if the industry is availing itself of operatives — working in the same trade as that of the unemployed artisan — provided through the ratio system at the time.

If the system works as intended, the unions will have no alternative but to agree to increase the ratio operatives grade 1 : artisans, given that White artisans are leaving the industry so rapidly (Section 5.3.1.5) and that the inflow of Coloured artisans is not expected to be compensatory. With slight re-interpretation, the purpose of the ratio agreement may be to foster this process of adjustment in the labour market with a minimum of friction between the unions and management. That is, the extent to which the ratio changes will be determined by the pace at which White artisans leave the sector. This precludes the possibility of retrenchment of artisans in accordance with the maximum feasible operative grade 1 : artisan ratio on site.

Whether the wage set for operatives grade 1 will retard their use by employers is very difficult to predict a priori. However, the normal employment effect of high minimum wages are exacerbated by factors such as employer prejudice (where two races occupy one job) and lack of training, both of which have more impact in the short-than in the long-run.

The rapidity of change appears to be such that BIFSA is planning — for the near future — to establish a training channel (for Whites only) such that they can circumvent apprentice training and the artisan strata altogether. In a newspaper interview, the director of BIFSA stated:

"the industry was working on a plan to cut down the period of apprenticeship training, and was also intending to set up a scheme under which selected recruits would be trained specifically as charge hands without ever going through traditional artisan training ... this should help solve the manpower shortage - it will be training for a proper purpose. At the moment training is constructed on a broad
field; people are trained for things they will never need to do in practice ... the new scheme will make the industry more attractive as a career by allowing immediate possibilities for specialisation and supervisory functions". He added: "The likelihood is that the new charge hand training will be available to Whites entering the industry. Coloured people and Indians, where the law allows it, will go through the reconstructed and reduced period of artisan training". (49)

6.4.3.2 Wage and Fringe Benefit Gains

One important consequence of the series of agreements negotiated in the industry has been the payment of increased wages and fringe benefits to artisans. There is strong evidence that whilst operatives' wages have also been improved because they have taken over jobs from Whites and retained part of the higher earnings — White wage increases at negotiations have exceeded productivity gains. The unions have tried to portray this as an attempt to coax White workers back to the industry; however it has increasingly been seen as one manifestation of the power which the registered unions have to block the occupational mobility of Black workers on terms other than their own.

This feature of fragmentation agreements (in industry) was discussed by the SPROCAS Economics Commission, which reported that:

"The result of negotiations between management and the representatives of White and occasionally Indian and Coloured trade unions regarding the 'dilution' of certain job categories is that the represented workers receive increased benefits as do the employers who are now able more 'rationally' to utilise their African labour force in these diluted jobs". (50)

Before looking at the precise details of the negotiations, we must consider the wage and fringe benefit structure of artisans in the industry. These fringe benefits fall into four major categories: a) the holiday fund — a weekly contribution made by employers only to compensate artisans for loss of earnings during builders' holidays; the accumulated contributions are collected at the end of each year by artisans; b) medical aid and c) the pension fund. The latter consists of three different payments. First is a pension scheme. Second is the death benefit, a cash payment (of currently up to R4 000) to the dependents of an artisan if
he dies whilst still working in the industry. The last is the permanent disability benefit, a monthly payment made to those permanently disabled whilst working in the industry. The fourth category, d) consists of a group of four funds - the sick fund, unemployment stabilisation fund, inclement weather fund and tool insurance fund. These funds were established to compensate artisans a part of the earnings lost due to unavoidable circumstances.

The last two categories, c) and d) are collectively referred to as the benefit fund. Contributions to medical aid and the benefit fund are shared with the artisan (although employers still pay about 80 percent of the total weekly contribution). Contributions to the holiday fund are made solely by employers. These contributions are shown in Table 28 (Appendix 1, Section 7).

At reclassification agreements the emphasis has been on improving union members' fringe benefits rather than their minimum wages. Improvements in wages flow naturally from competition between employers for labour and, given the large amount of wage drift in White wages, it is unlikely that there would be any overall improvement in the position of the artisan if minimum wages were increased. Furthermore, artisan wages in the industry have been on an automatic cost-of-living adjustment since the early 1950's.

Fringe benefit contributions and payments are set at negotiations and usually run for the length of an agreement; there is no automatic adjustment mechanism. Thus the increase in these fixed payments are a priority when a new agreement is negotiated. The level of benefits is considered highly relevant in the building industry because they often compensate for unavoidable occupational hazards of the industry, i.e. loss of earnings due to unemployment, wet weather, injury, etc.

As far as the writer is aware, 1966 was the first fragmentation agreement in the industry where the unions received benefits for allowing the fragmentation of jobs. Thus it most probably set a precedent in the building industry and possibly in industry generally. The concessions granted by the MBA to the unions were mainly in the form of fringe benefits such as improved pensions, medical aid and sick benefits. To finance this, employers' weekly contributions to the benefit fund were trebled from R1,68 before the
agreement to R4,89 after it. (Table 28). Whereas the ordinary holiday fund allowance for artisans was 7,25 cents per hour at the time, the agreement introduced a special holiday bonus (for artisans only) which was 10,2 cents per hour, thereby more than doubling holiday pay for artisans. (See Table 28). It was estimated that this would give every artisan an extra R200 in holiday pay at the end of every year. (51)

One of the biggest concessions made was in regard to the benefit fund. Payments under category (d) referred to above - the wet weather, unemployment stabilisation funds etc. - have always been restricted to a percentage of wages. For example, if an artisan was off sick, he would be remunerated a fraction of his wages by the fund but under the rules of the funds would not get his stamp. The biggest carrot in front of the trade unions at the 1966 negotiations was the offer that, for example, if an artisan were off sick, he would earn part wages as well as the full stamp, i.e. there would be no loss of continuity in his benefits if he was not working. It has been estimated that the cost of all the concessions mentioned above to employers amounted to an additional R8,00 per artisan per week. (52) There was also a small increase in minimum wages.

It is not clear what concessions the unions gained from the 1969 fragmentation agreement; however, over the entire period from 1966 to 1974 benefits continued to rise, whether or not in the context of such bargains. The cumulative rise over this entire period was, however, not as great as the increases granted in 1966 alone.

An important change introduced in the 1975 Main Agreement was the restructuring of artisan benefits. Till this time, artisans earning substantially different wages were being paid the same stamp because only one set of benefits is laid down for each occupational grade in the industry. It was decided that the weekly contribution to benefits by employers (and the value of the stamp) would be determined by the average wage earned by an artisan. This was a particularly important innovation for foremen, since no special minimum wage is set for them (although they always earn more than the best-paid artisans) and they get the artisan stamp.
The minimum wage of artisans was increased from R1,52 to R1,76 in the draft of the new Main Agreement whilst the value of the artisan stamp immediately prior to it was R19,70 per week. The new sliding scale adopted for stamps was as follows: artisans earning between R1,76 and R1,97 per hour became eligible for the lowest artisan stamp value, i.e. R27,39. Artisans earning between R1,97 and R2,43 earn a stamp valued at R31,19. (Such artisans are now called "master artisans" in the industry), whilst those earning above R2,43 earn a stamp worth R35,79. This last category are referred to as supervisors, since they are by and large foremen.

Table 28 gives greater details of changes in fringe benefits, and shows that all categories of benefits were raised substantially.

When the Main Agreement was eventually published in October 1975, the artisan minimum wage was R1,92 (by virtue of a rise in the cost-of-living index in this interim period). The Agreement stipulated that on 1/11/1975, 1/5/1976 and 1/11/1976 (the dates on which half-yearly adjustments based on increases in the cost-of-living are made to artisan wages), increases of 20 cents, 25 cents and 30 cents per hour (respectively) over and above the cost-of-living allowance were to be granted.

It appears that artisans will benefit greatly from this three-tier system of stamps. According to the general secretary of the BBV, in October 1975 only 19 percent of all artisans in the industry were on the minimum scale whilst 46 percent and 35 percent were in the middle and top brackets respectively. According to the general secretary of the AUBTW, his members on the middle stamp are now taking home R800 holiday pay (bonus plus ordinary holiday pay).

Those artisans who will benefit most from the increased wages and fringe benefits negotiated are clearly those whose earnings qualify them for the middle or top stamp. If an artisan wage hierarchy - in which White artisans earn higher average wages than Coloured artisans - is established, then White artisans will benefit most from the increased stamp values negotiated. There is also a status attachment here, since these artisans will be referred to as
"master artisans" whilst this will not apply to those earning lower artisan wages.

The Star estimated\(^{(56)}\) that the effect of the stamp increases (i.e. fringe benefits alone) in the draft agreement would be to raise the cost of building the average home by R280.

With these increased contributions from employers have gone increased benefits. For example, inclement weather benefits used to be R1,00 per working hour after the first four working hours per week lost due to inclement weather (the first four hours lost are not compensated). In the new agreement this amount was raised to R1,50 per working hour. The sick benefit, which used to pay R3,20 per working day for the first 65 working days in any cycle of one year, had its payments increased to R7,00 for the first 15 days in any cycle of one year and thereafter R3,20 for another 50 days.\(^{(57)}\) The only other major change in the rules of the stabilisation fund was the 20 year employment preference clause.

The unions have also gained certain rule changes as a result of bargaining. For example, the amendment to the Main Agreement in 1970 provided that all overtime in excess of one hour per day on weekdays and up to 5 p.m. on Saturdays was to be remunerated at a rate of one-and-one-third times ordinary wages, whilst any overtime after 5 p.m. on Saturdays, or on Sundays, public holidays and builders' holidays was remunerated at one-and-one half times ordinary wages.\(^{(58)}\) These rates had in fact been adjusted upwards from one-and-one-quarter and one-and-one-third respectively in the amendment. In the 1975 Main Agreement, these rates were raised to one-and-a-half and two respectively.\(^{(59)}\) Whereas builders were previously only bound to give two working days' notice to workers who had been with them for more than two days (no notice period was required for workers who had less than two days' service), the new agreement provided that no artisan may be given less than five working days' notice after the completion of 65 working days' service.\(^{(60)}\)

It should be pointed out that the extent of job enrichment has not set an upper limit to the wage settlements made between the unions and the MBA. The redundancy agreement referred to in Section 6.4.3.1 should further have lessened the constraint that
real productivity increases exert on trade union demands for wage increases. Given the strong preference that employers have for White artisan labour - as well as the redundancy safeguard - the brunt of any employment cutback resulting from a wage-productivity comparison could well be borne by Coloured artisans.

The unions would appear to be in a particularly powerful position to achieve wage increases at fragmentation negotiations. BIFSA, in its submissions to the latest industrial tribunal, stated:

"Labour, having benefited materially from spiralling premium wages, is now determined to entrench its position by "selling" the protection afforded by work reservation - which most if not all of the trade unions regard as a dismal failure - for a minimum wage far in excess of prevailing average wages. This unrealistic approach to negotiations unintentionally arises out of work reservation and amounts to exploitation of Government policy as formulated in the Riekert Report ... It goes without saying that the virtual right of veto conferred on the trade unions by this policy will have disastrous consequences for the economy as a whole". (61)

It added:

"It is submitted with all due respect that in an organised industry like the Building Industry, the term 'uncontrolled dilution' is a misconception and that work reservation, instead of curbing dilution, has placed an unnecessary and inflationary premium on the dilution process". (62)

The wage and accompanying benefit increases pressed for at negotiations may well be a minimum income requirement (as insurance against White wage deflation) demanded in return for concessions on the entry of Black workers to the skilled trades. In this context, the increased rate of overtime pay negotiated at the latest agreement may also be interpreted as an attempt to compensate for anticipated loss of overtime earnings for artisans due to easier labour market conditions in the future.

It is possibly tautological - but nevertheless worth repeating - that the bargaining power of the unions at reclassification negotiations increases the freedom they have to win the best deal for their members. In the context of the latest negotiations, the unions have instituted a programme for protecting
their earnings - and share of employment - in the industry. The type of payments negotiated, e.g. increased pension payments, etc., reflect the increased average age of the labour force.

It is likely that the package deal bargained for will set up pressure to speed up the withdrawal of White artisans from the sector. There are two inter-related reasons for this. Firstly, it is argued that the only sound basis for wage increases in this context is job enrichment. It is likely that the conclusion of the latest negotiations (with the introduction of increased wage scales) is not coterminous with White job enrichment, because in this instance the negotiations have largely given legal recognition to the prevailing occupational structure. In effect, this could imply that White job enrichment was compensated by the market as it occurred, i.e. as the factor of production White labour became more scarce in the 1960's and 1970's, its marginal productivity was rising all the time and this was reflected in increased wages.

Secondly, to the extent that these wage increases cannot be compensated for by retrenchment of White artisans (63) (see footnote) employers may well attempt to reduce costs in other areas, e.g. by a reduction in information costs incurred in recruiting White labour. This could be reflected, for example, in decreased efforts to recruit White apprentices by employers. Should this occur, it will slow down the rate of increase in the White artisan labour force and speed up their exit from the sector.

6.4.4 African Training

Although the focus of this study is on occupational mobility of Black workers, it is important to describe the efforts of the industry to train Black labour. This will help to give a more dynamic perspective on the upward shifting of the colour bar. The aim in this section is to emphasise two thoughts. Firstly, how the shortage of skilled labour has manifested itself in African worker training and the problems to be overcome. This corresponds with the view that the industry is gradually shifting its attention from overcoming the bottleneck in supplies of skilled White labour to overcoming bottlenecks in the supply of Black semiskilled labour. Secondly, it attempts to indicate the extent of training of Black labour in the industry, i.e. employer demand as a crucial deter-
ominant of the training facilities, and the scope for skill acquisition. Comprehensive information on training in the industry was obtainable both from BIFSA, which is handling employers' training needs, and also through interviews with some of the larger firms which instituted training schemes for African workers several years ago.

We will begin by attempting to give a micro-perspective of the needs of the firm and the problems involved in training before looking at the extent and nature of formal training facilities.

6.4.4.1 The Benefits of Training

It was brought home again and again in discussions with officials in the industry that its attitude to Black labour is changing from one of 'benign neglect' to a more positive attitude which can crudely be summed up as 'we need you'. (This is evident from the empirical investigation discussed in previous sections and will become more evident in this section). Spandau describes the former attitude as follows: "as long as the worker performs the assigned job satisfactorily (irrespective of whether he's an old or new worker) he's unlikely to be given informal on-the-job training. He argues that industrial skills amongst Africans have been acquired mainly through learning-by-doing in local industry and therefore cannot even be categorised as on-the-job training, since "by on-the-job training I understand a training process which takes place while the worker is actually engaged in producing the firm's product". He

In the building industry, this 'learning-by-doing' has - more often than not - meant that new workers are assigned to one of the gangs on site, e.g. a shuttering gang, and would be instructed by the bossboy or occasionally by a White foreman. But as Steenkamp has said: "training of Africans has for too long been left in the hands of foremen or supervisors who are often either unsympathetic or incapable of teaching others".

Another factor which emerged from the field-work was that promotion was often based on length of service with the firm or acquaintance with the foreman. Promotion of African workers depended on the foreman's judgement, and he would often choose someone who
could speak English or Afrikaans rather than someone with inherent ability.

The industry has also been losing its semiskilled workers at a rapid rate. This is seen to counter efficiency and therefore higher wages in the semiskilled grades. As the industrial relations manager of Roberts Construction has said:

"Basically, what costs the money is turnover in labour. Among Blacks, in the period April 1974 to March 1975, this stood at 62 percent of the total work force in the contracting industry - peaking at 101 percent just after Christmas when workers failed to report back after builders' holidays ... What it all boils down to is that the industry is having to replace well over half its labour force every year. And it costs at least R750 to replace a White worker and R100 to replace a Black worker in terms of advertising, training, induction and what have you. So at a conservative estimate the industry is losing R3 million a year due to labour turnover". (67)

This high labour turnover would seem to be due to two problems faced by the industry. Firstly, there is the "hire and fire" philosophy of employers in the industry and the inadequate vision of foremen when it comes to knowing which workers to lay off, although even medium-sized firms surveyed did have some rudimentary plans to transfer key Black workers to other sites when work on one site came to an end. According to the Murray and Roberts survey of Black hourly-paid labour in the industry, labour turnover is lowest amongst medium-sized companies and highest among the largest contractors, possible because in medium-sized firms management is more in touch with events on site. (68)

However, another important factor emerged which may provide a different explanation of the phenomenon of high labour turnover. The largest firms would appear to have a higher turnover in skills because they move from rural to urban areas and cannot move their labour force with them. "Raw" recruits are often hired on the spot and trained for one particular job. For example, Roberts Construction were awarded the contract to build the culverts for the Sishen-Saldanha scheme, a job which lasted almost three years. Labour was recruited in the area, trained on site but then released at the end of the contract because their skills were specific to the project. Thus labour turnover not only rose but there
was also wasted training to some extent.

On the termination of the worker's twelve month contract he is required to return to his homeland, report to the tribal labour bureau, and there await re-employment. This procedure would give weight to those protagonists of the argument that the migrant labour system in South Africa is extremely inefficient: there is a high labour turnover which militates against workers acquiring skills and training. Apart from the fact that twelve months is generally too short for a worker to become fully proficient in his occupation, or just as he is acquiring the skills he is forced to leave the job, it is further argued that employers will not be prepared to invest in human capital (i.e. in the form of education and on-the-job training) if the workers are only temporary resources.

We have already noted the inefficiency inherent in the practice of rewarding length of service by promotion. This appears to be symptomatic of a view taken by supervisors in the industry that Black workers are an indistinguishable mass of temporary migrants with little or no difference in aptitude. The experience of some large mining houses in aptitude selection has shown this to be an inefficient practice and will be discussed later in this section. As one building industry chief says: "It is not so much a question of training the labour as training the supervisors to use the labour properly". Yet, such inefficient practices perpetuate the view that African workers are untrainable, that they are expendable labour units, rather than people with a capacity for internalising skills. Although this former view was denied by builders spoken to, one quickly gains this impression whilst on a building site observing working practices.

By all accounts, formally training workers in certain rudimentary work in the industry has led to substantial increases in productivity. One major Transvaal contractor has shown that, after training "raw" African recruits from the homelands for one week prior to sending them on site, a 25 percent reduction in labourer requirements for the same output could be achieved. This is in accord with recent research work in South Africa which, says Spandau, has shown that the African's quality as a skilled worker is closely tied to his level of training.
A very important factor in productivity is the improvement which occurs on a site as organisational problems get sorted out and operatives get accustomed to familiar tasks. In one study cited by the Phelps Brown Commission in the United Kingdom, it was shown that the difference between average labour requirement for work early in the sequence of construction and the average when a steady tempo of work had been achieved was found to be about 8 percent for conventional construction and 12 percent for prefabricated construction.\(^{(72)}\) In one Cape Town firm, a short induction course held prior to workers going on site simply taught the labourers care and handling of tools, kinetic handling methods for building materials and the different types of equipment on site. These considerations seem to be equally if not more true of semiskilled labour, except that the initial training period (i.e. on-the-job) is longer. The training manager of Murray and Stewart (Eastern Province) has shown that a 50 percent increase in output can be achieved by any five-man team after a four-day course in formwork, scaffolding or steelfixing.\(^{(73)}\)

The features just described may, incidentally, have important implications for wage and employment policy since contractors are able to respond to increased wages in the unskilled and semiskilled grades by instituting simplified training and then reducing their labour complement.

6.4.4.2 The Content of Training Schemes

Following on what has been said above, the industry has had within its capability the ability to devise training schemes embodying the following characteristics: a) they are within the bounds of government policy, i.e. they impart skills that African workers are legally allowed to do; b) the schemes are of fairly low cost whilst the returns (if the workers have had no training experience before) are high; and c) they may employ some form of systematic selection procedure to sort out those most adaptable to skilled work and those who will respond most rapidly to training. We may consider each of these characteristics in turn.

These training schemes have been able to proceed in construction without any large-scale relaxation of occupational barriers to Africans because there has been little organised train-
ing even for those jobs long since opened to Africans. Such jobs include shuttering, scaffolding and steelfixing. A survey carried out by the Building Industries' Recruitment and Training Fund a few years back asked employers to rank semiskilled labour in order of greatest shortage. Significantly the results show that training is still needed in those jobs Africans have been doing for many years:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shuttering hand</td>
</tr>
<tr>
<td>2</td>
<td>Scaffolding hand</td>
</tr>
<tr>
<td>3</td>
<td>Artisan's assistant</td>
</tr>
<tr>
<td>4</td>
<td>Crane driver</td>
</tr>
<tr>
<td>5</td>
<td>Hoist driver</td>
</tr>
<tr>
<td>6</td>
<td>Mixer driver</td>
</tr>
<tr>
<td>7</td>
<td>Compressor operator</td>
</tr>
<tr>
<td>8</td>
<td>Dumper driver</td>
</tr>
<tr>
<td>9</td>
<td>Vibrator operator</td>
</tr>
<tr>
<td>10</td>
<td>Excavation hand</td>
</tr>
<tr>
<td>11</td>
<td>Steelfixing hand</td>
</tr>
</tbody>
</table>

Thus training would first and foremost appear to be necessary in jobs where there is already an effective demand for these skills.

Apart from the fact that training can provide relatively high returns, training periods are also relatively short. The longest off-the-job training period for any grade of Murray and Stewart's semiskilled workers is three weeks. The short length of formal training periods is of course due to the fact that the skill, once correctly taught initially, is perfected by repetition on the job. The shortness of off-the-job training is obviously one factor reducing the cost to the firm of providing facilities: Murray and Stewart's training centre at Epping serves all its building sites in the Western Cape. Although the writer has no sound basis for making the following observation, the cost of establishing these facilities appears to be quite low — R35 000 in the case of the Epping centre. In fact, in some cases, training on a large site — e.g. at Palaborwa or Sishen-Saldanha — has been carried out from one caravan especially equipped with training facilities. Costs of maintaining these training centres are far higher — R50 000 annually in the case (once again) of Murray and Stewart's Epping centre.

However, in its efforts to encourage training of labour the government has extended its tax concessions to permit the following to take place:

"Any employer (except mining) incurring training expenses in respect of Bantu workers shall be allowed as a deduction from his income for that year of assessment an allowance equal to 100 percent of such
Expenses mean remuneration of instruction personnel, trainees' wages, rent, maintenance and insurance on premises and any travelling expenses. However, the scheme has to be approved and registered by the Department of Bantu Education before the firm becomes eligible for tax concessions. In the border areas firms are able to recover R1,25 of each rand spent on training. According to the Financial Mail, till August 1975 236 applications for these schemes were made (in all industry) of which only 61 were approved. The fact that these concessions came into effect in April 1974 whilst the biggest firms in the industry - e.g. the Murray and Roberts group - have been conducting their schemes since 1972, would seem to lend weight to the argument that the costs of these training facilities are not very high.

Systematic selection procedures are important if they have not been used before and if the firm is to maximise the output from its labour force. Since formal training schemes entail selection off site, selection is out of the hands of foremen and can be based on objective criteria of capability. This has been a feature of Black labour utilisation on the mines from 1946 using psychological tests tailor-made for the gold mining industry. On the mines, such selection procedures have been used to subdivide African workers into three principal groups: labourers, machine operators and semiskilled workers, and supervisors.

Systematic selection procedures have been adopted by the Murray and Roberts group since it started training. Basically, Black training is divided into four channels (or modules), preceded by initial selection in the homelands (by aptitude testing) to weed out the "very dull". The first module is a one week induction course, which is the general labourer's course already mentioned. Workers are then selected for training in the group two module - the four basic group skills in the industry - concreting, scaffolding, shuttering and steelfixing. The third channel consists of training as dumper drivers, bulldozer operators and crane drivers.

The length of training in these two modules varies from three days (e.g. in steelfixing) to three weeks (e.g. in crane driving). Apparently whilst the dropout rate is almost zero in
lower level tasks like steelfixing, it is as high as 85 percent at more complex levels like crane-driving.

The last module is another individual skills channel concentrating on the training of gang bosses and junior supervisors.

From interviews with employers and the Bantu Labour Officer for the Southern Transvaal, it became apparent that contract labour procedures were not leading to the loss of semiskilled workers; rather it was the worker's own decision not to return to the firm or the firm which laid him off. The contract labour system has been extended to allow the following to take place. If after the twelve month period of contract labour has ended, the employer is satisfied with the worker's ability and thus requests his service for another contract, and if the worker himself agrees to that request, then the employer, after applying to the local labour bureau, issues the employee with a "call-in-card". The African worker on returning home will take the card to the tribal labour officer and will be given automatic permission to enter into a new service contract with the same employer. Needless to say, such practice does not militate against acquisition of skills nor the efficiency of the worker. The statutory return home amounts (in cases where the "call-in-card" is used) to little more than a three week holiday.

Apart from the need to institute training schemes, there must be equal pressure on employers to conserve their trained semi-skilled labour resources since it is this, rather than the costs of the actual training, which is a costly factor in training. The problem areas in this regard have already been outlined and include: 1) the cyclical work load of the industry; 2) the fact that decentralised management (at site level) does not take into account any manpower planning; and 3) the fact that workers are often trained for one job only and then released because these skills are redundant on other jobs. The firm is powerless if the worker himself decides not to renew his contract with the firm: however, studies in the industrial relations (works and liaison committees, etc.) and industrial psychology milieu would be necessary to sort this problem out.

As has already been noted in Section 5, some firms have allowed overheads to rise during slump conditions by retaining their
most valuable workers. Roberts Construction in Natal is trying to control the problem by instituting a control board at its training headquarters to prevent trained men from being discharged when work at a particular site comes to a close. (83) Murray and Stewart are one step further—they estimate that within the next three years all their construction labour will be registered, i.e. their skills and aptitude are being listed as a prelude to more intensive manpower planning and in anticipation of making use of a personnel computer. (84)

6.4.4.3 The Extent of Training

Until two years ago, the training schemes described above were conducted by very few firms in the industry. The Building Industries' Recruitment and Training Fund survey referred to earlier found that 85 percent of 73 firms (consisting of large, medium and small contractors) surveyed in 1974 did not do any training of non-artisan labour. Of the remainder (eleven firms) only three ran organised training schemes. Since it is the larger firms who were doing training at the time, it is estimated that these schemes covered from 20 to 30 percent of all Black workers in the industry.

However, in response to another question all the contractors said they would use training facilities if they were made available at industry level. The Witwatersrand industry has made two significant moves in this direction. The first is the decision by BIFSA to make use of the public—in service training centres for semiskilled labour. (85) These centres are established for employers with common training needs and cater for all categories of employers. They are meant to cater for African workers in "White" areas and are strictly limited to semiskilled (operative) and unskilled training. They fall under the ultimate jurisdiction of the Standing Committee of the Department of Bantu Education on which government departments, registered unions and employer organisations sit. Each centre is run by its own governing body consisting mainly of employers. The buildings and basic equipment costs are to be borne by the government but the operating costs are to be met by the industries which the centres will serve. Each centre is to have a hostel accommodating approximately 150 trainees—employers will pay R10 – R15 per week per student and R3 per week accommodation expenses. These fees are tax deductible since employers qualify for
the same tax concessions as those available for private training schemes. Apparently these courses are to be run by competent trained instructors. (86)

Eight of these centres have been planned. The building industry is already making use of the one in Bloemfontein, and courses in steelfixing, shuttering and similar skills are being offered. The Witwatersrand building industry will be well served since three are planned in this area alone: in the Vanderbylpark/ Vereeniging area, in Benoni and Pretoria. Only two of these centres, namely Bloemfontein and the West Rand centre at Krugersdorp are already functioning. Whilst the buildings of the Vaal Triangle, Port Elizabeth and Pinetown centres are ready, the centres in Pretoria and on the East Rand will only be operational at the end of 1976. (87)

The second significant move on the part of the industry to provide non-artisan training facilities was the decision by BIFSA to build a training centre on land purchased at Springs to cater only for employers and employees in the building industry. (88) This facility falls under the category of private in-service training centres. Employers using it will qualify for the same tax concessions granted to employers conducting their own training schemes, provided (again) that the centre is registered by the Department of Bantu Education. The costs to employers will be mainly trainees' wages and travelling expenses, since all other costs are apparently to be met by BIFSA. (89) The centre is to be built with funds raised by the employee levy of the Building Industries' Recruitment and Training Fund.

One big advantage of these centres seems to be that they have the flexibility to incorporate into their training programmes work reclassified as semiskilled at industrial council agreements. Apparently centres on the Witwatersrand have already employed supervisors to give training to the operatives grade 1 in brick-and blocklaying, carpentry and glazing. (90) This will ease the supply of semiskilled workers in the short term in response to employer demand when labour utilisation rules change at council negotiations. This will ease the problem of "dynamic shortages" in the supply of
trained semiskilled labour. One of the barriers to the training of Black labour has been that employers have not wanted to build training facilities pending the outcome of industrial council negotiations.

Thus in the final analysis it would appear that the industry's attitude to the training of Black labour has changed significantly in the past decade. Furthermore, whilst legal barriers to Black advancement do not inhibit aptitude or negate it, they may perpetuate this view of Black workers among employers. With proper selection and training, the industry will be able to make a smooth transition into the future.

6.5 Conclusions

The major de jure changes in the occupational structure discussed in Section 6 represent a breakthrough for African semiskilled workers - and to some extent Coloured artisans - into the Witwatersrand building industry. In the case of the semiskilled grades, operatives will take over certain jobs from Whites and retain part of the higher earnings. The re-allocation of work from skilled to semiskilled labour is an important structural change occurring in the industry. It was argued that this job dilution will be an important constraint on the long-term demand for Coloured artisans.

This lengthy section has attempted to construct a pattern of de jure African - and to a lesser extent Coloured - occupational advancement in the Witwatersrand building industry from 1966 onwards. Official colour bars in the industry have been periodically lowered by job fragmentation, i.e. re-defining artisans' work and creating new semiskilled positions. This has, in many cases, only given legal recognition to the prevailing occupational structure.

The unions have devised strategies to protect their earnings as they move out of the sector. The colour bar has in fact been bolstered after negotiations by the rate for the job and ratio requirements. In time, the ratio system will virtually confine the work of White artisans to key operations and supervisory functions. New and separate channels for White workers only are being devised (with the colour bar intact) to entrench their position.
at the supervisory level.

It was argued that the wage increases won by the unions at negotiations have not been balanced by commensurate job enrichment as a result of job dilution. This derives from the power of veto that the registered unions have at reclassification agreements. In this context, the "rate for the job" is envisaged as a minimum wage and accompanying conditions of employment which would price out of the market competition from Coloured artisans and prejudicially affect building costs. The analysis suggests that the interests of White workers must be balanced with the interests of the economy by eliminating the scope for unrealistic bargaining afforded by undue protection.
FOOTNOTES : SECTION 6.2

(2) Ibid., p.249.
(5) Ibid., p.250.
(7) *Race Relations Survey* 1964, p.252.
(9) *Race Relations Survey* 1974, p.293.
(10) Ibid., p.293.
(12) Ibid., p.58.

SECTION 6.3

(1) Published under Govt. Notice No. 17 of 2/6/1961.
(2) Verslag van die Nywerheidshof ens. 10/7/1959, p.25.
(4) Verslag van die Nywerheidshof ens. 10/7/1959, pages 9 and 13.
(6) Verslag van die Nywerheidshof ens. 10/7/1959, p.11.
(8) Verslag van die Nywerheidshof ens. 10/7/1959, p.12.
(9) Report and Recommendation by the Industrial Tribunal etc. 31/10/1974, pp.31-32.
(10) BIFSA, Memorandum for the Information of the Industrial Tribunal etc., p.4.
(11) Ibid., p.4.
(13) BIFSA, op.cit., Annexure E.
(15) Ibid., p.232.
(16) Report by the Industrial Tribunal etc. 31/10/1974.
(17) Ibid., p.46.
(19) Report by the Industrial Tribunal etc. 31/10/1974, p.50.
(20) Ibid., pp.31-34.
(20a) Figures supplied to the writer by the general secretary of the industrial council.
(22) Management June 1975, p.16.
(23a) Rand Daily Mail 18/2/1971.
(29) BIFSA, op.cit., p.38.
(30) Report by the Industrial Tribunal etc. 31/10/1974, pp.31-32.
(32) Report by the Industrial Tribunal etc. 31/10/1974, p.10.
(33) Ibid., p.51.
(34) Ibid., pp.47-48.
(37) Ibid., p.32.
(38) Ibid., p.32.
(39) Ibid., p.29.

SECTION 6.4

(1) Verslag van die Nywerheidshof ens. 10/7/1959, pp.31-35.
(2) M. Horrell, op.cit., p.110.
(3) BIFSA, op.cit., p.70.
(4) Ibid., p.70.
(5) Ibid., p.70.
(6) Ibid., p.71.
(7) Ibid., p.72.
(7a) Ibid., p.73.
(8) Ibid., p.45.
(9) Ibid., p.4.
(11) Ibid., p.177.
(12) Verslag van die Nywerheidshof ens. 10/7/1959, pp.14-16.
(13a) Ibid., pp.31-35.
(14) Ibid., p.16.
(16) M. Horrell, op.cit., p.110.
(18) Ibid.
(20) M. Horrell, op.cit., p.110.
(22) Ibid., p.5.
(26) M. Horrell, op.cit., p.111.
(28) Ibid.
(31) Ibid., pp.6-8.
(32) Ibid., p.10.
(37) Ibid., p.6.
(38) Ibid., p.3.
(39) Ibid., p.7.
(40) Ibid., p.7.
(41) Ibid., p.3.
(42) Ibid., p.7.
(42a) Non-Artisan Agreement, G.G. 13/10/1972 No. 3678, p.11.
(43) Main Agreement, G.G. 17/10/1975 No. 4875, p.16.
(45) Assembly Hansard 17, 1968, col.6490.
(47) Information provided by the general secretary of the industrial council.
(52) BIFSA, op.cit., p.28.
(53) The Star 2/11/1974
(57) Information provided by the general secretary of the industrial council.
(60) Ibid., p.12.
(61) BIFSA, op.Cit., p.34.
(62) Ibid., p.35.
(63) I assume here that White artisan wage increases will be greater than those of Coloured artisans, since Whites - their wages being subject to greater wage drift - will earn a higher stamp value.
(65) Ibid.


(68) Ibid., p.41.

(69) Ibid., p.41.

(70) BIFSA, op.cit., p. 8 (Annexure A).


(74) Management January 1974, p.50.

(75) Ibid., p.50.

(76) Ibid., p.50.


(77a) Ibid.


(81) Management January 1974, p.50.

(82) Ibid., p.50.


(84) Ibid., p.89.

(85) Cape Times 15/10/1974.


(87) S.A. Builder.

(89) Ibid., p. 21.
(90) Ibid., p. 21.
SECTION 7

LABOUR MARKET CHANGES AND TRENDS IN THE EARNINGS PATTERN
7.1 Introduction

This section looks at trends in the wage pattern of the Witwatersrand building industry in the period covered by this study. Section 7.2 discusses the White wage pattern. The increases in White wages on the Witwatersrand are highlighted by comparing them to those in other regions where the industry operates. A comparison is also made with White wage increases in other sectors of the economy over the period.

Section 7.3 looks at the structure of African wages in the industry and the increases in wages that have occurred. This is done by reference to minimum wage increases, wage drift and inter-industry comparisons. Consideration is also given to wage-setting for jobs reclassified as semiskilled at industrial council negotiations. Section 7.4 discusses African fringe benefits.

In Section 7.5 the different movement of the average White and average African wage in the industry is analysed up to 1972, and an explanation is given of the differential movement. Since this analysis has important implications for policy, Section 7.5.3 is devoted to an analysis of the trends found.

It should be noted at the outset, that the wage gap chosen for analysis and referred to above is the proportion that average Black earnings bear to average White earnings and not the absolute gap in rands. The latter measure is confusing because it is proportionately smaller - and thus appears to be narrowing - at higher levels of income.

It should also be pointed out that the terminology used to describe the different components of wages is that used in the publications of the Department of Statistics. With only a few exceptions, the tables in this section are drawn from this source. The Department uses these measures of wages: (1) Minimum wage rates refer to minimum wages plus prescribed cost-of-living allowances only. In all cases they refer to those laid down by the industrial council in the relevant area. Minimum weekly wages are based on maximum weekly ordinary hours prescribed by the council.

Average actual wage rates include actual market rates, i.e.
minimum wages (including the cost-of-living allowance) plus "wage drift". Overtime plus all other allowances are excluded. **Average earnings** are based on total gross earnings of an employee before any deductions - e.g. tax - are made and include average actual wages, overtime earnings and employer contributions to all fringe benefits (including holiday pay).

**Average hourly and average weekly earnings** are based on average ordinary and overtime hours worked and not maximum ordinary and maximum overtime hours prescribed.

### 7.2 White Wage Pattern

#### 7.2.1 Inter-Industry and Inter-Sectoral Comparison of Earnings Growth

We may begin by comparing the wage movements of White workers in construction and other sectors in the period covered by the study. There is evidence of some improvement in the relative position of White workers in construction during the past decade. For instance, in 1961, annual White cash earnings in gold mining (R2 478) were well ahead of those in both manufacturing (R2 030) and construction (R1 926). In 1973, however, the monthly average gross cash earnings of Whites in construction was R408, versus R385 in manufacturing and R396 in gold mining. (2)

Horner calculated that the real annual percentage increase per capita in White wages from 1960 - 1967 was 5.9 percent in construction, as opposed to only 4.9 percent, 3.3 percent and 2.2 percent in manufacturing, mining and central government respectively. (3) According to the Department of Statistics' Quarterly Bulletin of Statistics, the average annual real wage increase of Whites in construction in the period 1962 - 1973 was 5.7 percent whilst that of Whites in manufacturing was only 4.6 percent. (4)

All these trends support the assertion that the rate of growth of White wages in the 1960's and 1970's was higher in construction than in other large sectors.

A further comparison can be made, this time between the earnings of artisans in building, civil engineering and electrical contracting. It is generally the case that artisan wages in civil
engineering exceed those in building, whilst those in the electrical contracting and building sub-sectors are closer together (even though there are separate industrial council agreements).

As far as pay structures in rural areas are concerned, artisans required for major civil engineering projects in rural areas have to be recruited from the large urban areas. For instance, Richards Bay has relied on artisans recruited from Durban. Although artisan wages in civil engineering are determined by the S.A. Federation of Civil Engineering Contractors, the kind of contractor who works at Richards Bay or Sishen-Saldanha will most likely demand the same conditions of employment as previously. Skilled wages in these rural areas may even be higher if the artisans are reluctant to live and work on isolated sites in rural areas.

With regard to fringe benefits, civil engineering employers generally buy the building industry stamp, so that artisans do not lose continuity in their pensions, holiday fund etc. when they move between the two industries.

Table 25 shows the average wages per hour of White artisans in the Witwatersrand building industry and the civil engineering industry in February 1973. The table indicates substantial differences in the wages of the civil engineering and the building industries.

Table 25: Averages Wages of Artisans in the Transvaal (February 1973).

<table>
<thead>
<tr>
<th></th>
<th>Building R/hr</th>
<th>Civil Engineering R/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenters</td>
<td>1.69</td>
<td>1.92</td>
</tr>
<tr>
<td>Bricklayers</td>
<td>1.58</td>
<td>1.84</td>
</tr>
</tbody>
</table>

* including overtime but excluding all allowances and fringe benefits.

These differences in earnings suggest that artisans - because of the unpleasant nature of civil engineering work - discount fairly heavily the perquisites offered by civil engineering contractors.

Two points must be borne in mind about the figures presented in this section. Firstly, the average White 'construction' wage is calculated by including, inter alia, white-collar and professional/technical workers and is therefore not the same as artisan earnings. Secondly, within the same context, the average artisan wage in construction is probably somewhat higher than that in building and electrical contracting, and somewhat less than that in civil engineering (Table 25).

7.2.2 Evolution of the Skilled Wage Structure

Conditions in the White labour market were described in Section 5. The most relevant information on skilled wage movements in the period 1962 - 1972 is shown in Table 26.


<table>
<thead>
<tr>
<th>Year</th>
<th>Artisans (1)</th>
<th>Foremen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum Wage</td>
<td>Average Earnings</td>
</tr>
<tr>
<td>1962</td>
<td>33,00</td>
<td>42,39</td>
</tr>
<tr>
<td>1963</td>
<td>33,20</td>
<td>46,36</td>
</tr>
<tr>
<td>1964</td>
<td>33,20</td>
<td>52,08</td>
</tr>
<tr>
<td>1965</td>
<td>34,80</td>
<td>54,44</td>
</tr>
<tr>
<td>1966</td>
<td>36,80</td>
<td>61,31</td>
</tr>
<tr>
<td>1967</td>
<td>36,80</td>
<td>59,62</td>
</tr>
<tr>
<td>1968</td>
<td>39,60</td>
<td>66,53</td>
</tr>
<tr>
<td>1969</td>
<td>40,00</td>
<td>73,67</td>
</tr>
<tr>
<td>1970</td>
<td>45,60</td>
<td>91,49</td>
</tr>
<tr>
<td>1971</td>
<td>46,40</td>
<td>91,23</td>
</tr>
<tr>
<td>1972</td>
<td>50,40</td>
<td>93,03</td>
</tr>
</tbody>
</table>

% Incr.
'62-72  52,7  119,0  52,7  111,5  56,1  63,9

Note : (1) - weighted average for all trades.

Sources : (1) Dept.of Statistics, Report 01-22-02,pp.2,3,5 & 12.
The most striking feature of Table 26 is the vast gap between minimum weekly wages and average weekly earnings of artisans and foremen in the industry over the period. Wages negotiated on the shop floor were far in excess of the minima laid down at industrial council negotiations. The gap is far wider for foremen since their market rate of pay is much higher than that of artisans, though they have the same minimum wage.

Some comments may be in order: Firstly, overtime earnings and wage drift (together with fringe benefits) account for the difference between minimum wages and average earnings. The growth of the first two are important reflections of increasing scarcities in the labour market. We find that, between 1963 and 1966, the gap between the minimum wage and average earnings of artisans grew by 27 percent (column E) whilst an increase of 32.6 percent was registered between 1968 and 1970.

Secondly, the minimum wage increases (column A) incorporate, inter alia, increases in the consumer price index since artisan wages have been on an automatic cost-of-living adjustment from the early 1960's. The increase in average earnings of artisans appear quite out of proportion with this increase.

Thirdly, the gap between average earnings of artisans and foremen tends to narrow in boom periods. For instance, the percentage difference in their average earnings decreased from roughly 55.3 (column F minus column E) in 1969 to 34.7 percent in 1971. A similar trend is noticeable for the period 1964 - 1966. One explanation for this could be that additional foremen were recruited from the ranks of artisans, which could have made supply conditions more elastic than those in the artisan labour market, where recourse had to be made to the external labour market.

We now have to look in some greater detail at the components of the gap between minimum wages and average earnings. It has been shown that — between 1962 and 1972 — the components wage drift, overtime and fringe benefits grew from 28.4 percent of total artisan earnings to 84.5 percent (Table 26, column E). As regards wage drift, its proportion to artisans' average earnings rose from 6.4 percent in 1962 to 11.9 percent in 1965 and 16.6 percent in
1972. (5)

We can consider overtime as well. Table 27 shows the proportion of overtime earnings in average earnings for White bricklayers/plasterers and carpenters from 1962 - 1972. A rising proportion of overtime to average earnings indicates that overtime earnings were exerting upward pressure on the minimum-wage-average earnings gap. The last two columns in Table 27 are important in this regard.

**Table 27:** Proportion of Overtime in Average Earnings of White Artisans on the Witwatersrand 1962-1972 (R/week).

<table>
<thead>
<tr>
<th>Year</th>
<th>Overtime Earnings</th>
<th>Average Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bricklayers/ Carpenters</td>
<td>Plasterers</td>
</tr>
<tr>
<td>1962</td>
<td>0,52</td>
<td>1,44</td>
</tr>
<tr>
<td>1963</td>
<td>3,49</td>
<td>4,26</td>
</tr>
<tr>
<td>1964</td>
<td>5,94</td>
<td>7,53</td>
</tr>
<tr>
<td>1965</td>
<td>7,27</td>
<td>8,48</td>
</tr>
<tr>
<td>1966</td>
<td>6,14</td>
<td>8,28</td>
</tr>
<tr>
<td>1967</td>
<td>5,48</td>
<td>5,75</td>
</tr>
<tr>
<td>1968</td>
<td>9,02</td>
<td>1,10</td>
</tr>
<tr>
<td>1969</td>
<td>11,51</td>
<td>17,20</td>
</tr>
<tr>
<td>1970</td>
<td>16,35</td>
<td>24,33</td>
</tr>
<tr>
<td>1971</td>
<td>16,11</td>
<td>19,94</td>
</tr>
<tr>
<td>1972</td>
<td>14,79</td>
<td>16,46</td>
</tr>
</tbody>
</table>

**Sources:** (1) Dept. of Statistics, Report 01-22-02, pp.8-9.  

In six out of ten yearly intervals (i.e. 1968-1969 etc.) - in both trades - the proportion of overtime earnings to total earnings rose. Needless to say, this proportion was rising in the boom periods in the industry. The amount of overtime, however, worked by carpenters tended to be higher. For instance, in 1969, overtime constituted 21,3 percent of average earnings and only 16,3 percent for bricklayers.
We may also consider the place of fringe benefits in this process. Table 28 (Appendix I, Section 7) - referred to in Section 6.4 - shows the increase in artisan fringe benefits between 1963 and 1975. Column 4 shows that employers' weekly contributions to the benefit fund increased from R1,68 in 1963 to R5,02 in 1975 - a threefold increase. Table 26 shows that - between 1962 and 1972 - artisan average earnings only increased by 119,0 percent.

It is also possible to get an idea of the increase in the value of fringe benefits from Table 29 (Appendix II, Section 7). Column (1) shows that between December 1969 and July 1975 the weekly artisan stamp increased from R13,79 to R30,80 (or 123,3 percent) whilst the minimum wage over this period increased from R1,04 to R1,76 (i.e. an increase of 69,2 percent).

7.2.3 Regional Comparison of Earnings Growth

We will now look briefly at the rate of growth of White artisan earnings in different regions. Table 30 shows the growth in average weekly earnings of White artisans in six regions from 1962 - 1972. Column (1) indicates that in 1962, average earnings in the different regions were clustering within a narrow range, whilst by 1972 the regional earnings gap was far wider.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Incr. 62-66 %</td>
<td>Incr. 69-70</td>
</tr>
<tr>
<td>Cape Penin.</td>
<td>39,10</td>
<td>47,60</td>
<td>21,7</td>
<td>56,52</td>
<td>60,71</td>
<td>7,4</td>
</tr>
<tr>
<td>Port Eliz.</td>
<td>36,18</td>
<td>48,45</td>
<td>33,9</td>
<td>58,79</td>
<td>60,84</td>
<td>3,5</td>
</tr>
<tr>
<td>Durban</td>
<td>41,89</td>
<td>54,21</td>
<td>29,4</td>
<td>67,21</td>
<td>71,72</td>
<td>6,7</td>
</tr>
<tr>
<td>Witwat. ersrand</td>
<td>42,39</td>
<td>61,31</td>
<td>44,6</td>
<td>73,67</td>
<td>91,49</td>
<td>24,1</td>
</tr>
<tr>
<td>Bfn.</td>
<td>38,06</td>
<td>49,99</td>
<td>31,3</td>
<td>71,61</td>
<td>69,82</td>
<td>-2,4</td>
</tr>
<tr>
<td>Pretoria</td>
<td>41,16</td>
<td>58,36</td>
<td>41,7</td>
<td>69,62</td>
<td>83,15</td>
<td>19,4</td>
</tr>
</tbody>
</table>

* - weighted average for all trades.

**Sources:**
(3) Dept. of Statistics, Report 01-20-01, p.54.
Column (8) shows that the growth in average earnings of artisans in the two inland provinces exceeded that in Durban and the Western and Eastern Cape. Between 1962 - 1972, average earnings on the Witwatersrand increased by 119.4 percent whilst the same increase for Cape Town and Durban was 75.1 percent and 97.1 percent respectively.

Column (6) reveals that the differential rate of growth of white artisan average earnings can largely be explained by the 'big push' which occurred in wages on the Witwatersrand between 1964 - 1966 and 1969 - 1970. For instance, in 1969 - 1970, these earnings grew by 24.1 percent and 19.4 percent on the Witwatersrand and in Pretoria respectively, but only by 6.7 percent in Durban and 7.4 percent in the Cape Peninsula.

The differential increases cannot be fully explained by differences in minimum wages. Table 31 shows differences in artisan minimum wages between regions in 1962 and 1972. The gap in minimum wages between regions is narrower than the gap in average earnings.


<table>
<thead>
<tr>
<th></th>
<th>1962</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Peninsula</td>
<td>R 29.59 p.w.</td>
<td>R 44.39 p.w.</td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>31.47</td>
<td>39.20</td>
</tr>
<tr>
<td>Durban</td>
<td>33.00</td>
<td>47.60</td>
</tr>
<tr>
<td>Witwatersrand</td>
<td>33.00</td>
<td>50.40</td>
</tr>
<tr>
<td>Bloemfontein</td>
<td>32.00</td>
<td>45.00</td>
</tr>
<tr>
<td>Pretoria</td>
<td>33.00</td>
<td>50.40</td>
</tr>
</tbody>
</table>

Sources: (1) Dept. of Statistics, Report 01-22-02, p.2.  

For instance, in 1972 the gap in minimum wages between the Witwatersrand and Cape Peninsula was R6.01, whilst the gap in average earnings was R24.55.

In the 1930's, minimum wages for building artisans showed a greater divergence between centres than they did in 1972. For
instance, in 1934 the minimum wage in Cape Town was 2s.8d. per hour versus Johannesburg (3s.6d.), Bloemfontein (3s.3d.), Durban (3s,2d. and Port Elizabeth (3s.) (6)

Part of the divergence in average earnings can be explained by different amounts of overtime worked. Table 32 shows the average amount of overtime worked by White artisans in different regions of the country. We would expect those regions with the greatest imbalances between demand and supply to have the highest overtime levels.

| Table 32 : Average Overtime Worked By White Artisans, 1962 - 1972. (Hours per Week) |
|----------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Cape Peninsula                        | 3,1    | 4,8    | 4,1    | 3,7    | 3,2    | 3,5    | 2,1    |
| Port Elizabeth                        | 1,4    | 4,4    | 4,5    | 2,9    | 2,4    | 3,4    | 3,9    |
| Durban                                | 3,4    | 7,9    | 6,7    | 6,3    | 5,3    | 5,5    | 6,0    |
| Pretoria                              | 0,8    | 5,6    | 3,0    | 4,2    | 5,0    | 4,9    | 4,2    |
| Witwatersrand                         | 1,3    | 6,9    | 6,0    | 6,5    | 10,2   | 8,5    | 6,7    |
| Bloemfontein                          | 0,7    | 6,0    | 5,1    | 7,6    | 7,1    | 6,5    | 5,4    |

* - weighted average for all trades.

Sources: (1) Dept. of Statistics, Report 01-22-02, p.7.  

The table shows that from 1970 to 1972, the average overtime per artisan was highest on the Witwatersrand. However, in the period 1964 - 1968, it was only surpassed by Durban and Bloemfontein.

In summary, although strong cyclical swings occurred in every region, there were important differences in trends between regions. The dramatic increase in artisan average earnings on the Witwatersrand in 1969 - 1970 was greater than that in other regions. Overtime, too, was greater on the Witwatersrand in later years.

Differential wage increases can be partly explained by
labour rigidities in various areas. For example, on the Witwatersrand the exceptional wage increases can be explained partly by the reluctance to bring about significant de jure changes in the labour market until 1975. Clearly, the rapid increase in wages cannot wholly be explained from the supply side. For instance, at least part of the wage increase may be attributable to the time-lag between increased employer demand for labour, the decision to increase wages and the movement of White labour from other sectors. With the spurt in the rate of growth of the industry in the mid-1960's, the bottleneck in apprenticeship prevented an elastic response in supply. But it could be argued further, that even allowing for the time-lag required, the response in terms of resources appropriated to education, particularly of Blacks, has been inadequate.

Finally, the evidence presented suggests a reason for the registered unions having concentrated on fringe benefit improvement at negotiations. The rate of growth of average earnings has far exceeded that of minimum wages, therefore the unions have sought - through industrial council bargaining - to keep fringe benefits in line with the growth in average earnings.

7.3 African Wage Pattern

7.3.1 Wage Structure in Black Grades

Table 29 (Appendix II) gives the most detailed information on the wage structure in the de jure Black grades in the industry. Presently, all semiskilled and unskilled work in the industry - except for a handful of White crane drivers - is done by African workers.

The occupational structure in Table 29 does not include certain ad hoc jobs performed by Africans in the industry, e.g. clerks, storemen, bossboys, etc. Furthermore, the wage structure is that laid down by the industrial council. As will be shown in Section 7.3.5, the de facto grading of workers by individual firms may be different. If these ratings were taken account of in the table, the de facto aggregate occupational wage structure would be different.
Operatives grade 1 are the most highly-paid African workers whilst labourers are the lowest paid. Lorry drivers have their own wage hierarchy, and their wages are interspersed between the various operative grades.

One important feature of the African wage structure is that different categories of workers - i.e. workers earning different minimum wages - earn the same stamp. For example, the wages gazetted on 29/12/1969 provided the same fringe benefits (i.e. a stamp of R3,20) for three classes of lorry drivers, and a stamp valued at R3,00 for operatives grade 2-5. Thus the wage structure is more dispersed than the benefit structure.

A distinction is made in Table 29 between workers 'on construction' and those in workshops or factories. Wages in workshops are set lower than on site. This is because the workshop labourer works indoors and is sheltered, while the work is not as strenuous as on site. The demand for labour in workshops also tends to be less seasonal and intermittent, with consequent greater income security for the worker.

A distinction is also made between 'area A' and 'area B', where area B refers to some of the outlying districts and towns within the jurisdictional area of the industrial council (such as Klerksdorp, Witbank, Brits and Krugersdorp) and 'area A' refers to towns such as Johannesburg, Pretoria, Boksburg, Brakpan and Benoni. The Department of Labour has taken the attitude that if wages in area B are too high, labour will be attracted away from agriculture to the smaller outlying towns classed as area B. The Bantu Labour Officer admitted that the Department has apparently asked the engineering industry to do the same. This distinction has not been made in the operative grades because of the smaller numbers involved.

7.3.2 Wage Increases in Black Grades

We will now discuss the trends in minimum wages of labourers and two semiskilled categories - drivers of vehicles from 0 - 1300 kg and hoist operators. Although the minimum wages of all semi-operative grades are published, the writer - on the basis
of trends in minimum wages in all grades from Table 29 - has taken these to be representative of the most important wage increases from 1962 to 1972 in all semiskilled grades.

The choice of the two categories is convenient because they are the only two semiskilled categories in the industry for which information on overtime earnings, average earnings and average actual wages is available.

Table 33 shows i) the increase in minimum wages, and ii) the ratio of average weekly earnings to minimum weekly wages - for the three categories referred to above - in the period 1962 - 1972. With regard to the increase in minimum wages, columns (1), (3) and (5) are particularly important.

Table 33 : Wage Trends for Drivers (0-1300 kg.), Hoist Operators & Labourers in the Witwatersrand Building Industry 1962 - 1972.

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) Drivers</th>
<th>(2)</th>
<th>(3) Hoist Operators</th>
<th>(4)</th>
<th>(5) Labourers</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(c/p.h.)</td>
<td>M</td>
<td>(c/p.h.)</td>
<td>M</td>
<td>(c/p.h.)</td>
<td>M</td>
</tr>
<tr>
<td>1962</td>
<td>36,5</td>
<td>134,4</td>
<td>28,0</td>
<td>124,3</td>
<td>17,5</td>
<td>107,8</td>
</tr>
<tr>
<td>1963</td>
<td>36,5</td>
<td>145,0</td>
<td>28,0</td>
<td>125,9</td>
<td>17,5</td>
<td>144,4</td>
</tr>
<tr>
<td>1964</td>
<td>36,5</td>
<td>148,8</td>
<td>28,0</td>
<td>138,2</td>
<td>18,5</td>
<td>119,3</td>
</tr>
<tr>
<td>1965</td>
<td>36,5</td>
<td>156,4</td>
<td>30,5</td>
<td>138,4</td>
<td>20,5</td>
<td>122,1</td>
</tr>
<tr>
<td>1966</td>
<td>36,5</td>
<td>156,5</td>
<td>31,5</td>
<td>129,2</td>
<td>21,0</td>
<td>118,6</td>
</tr>
<tr>
<td>1967</td>
<td>36,5</td>
<td>144,9</td>
<td>31,5</td>
<td>127,3</td>
<td>21,0</td>
<td>117,9</td>
</tr>
<tr>
<td>1968</td>
<td>36,5</td>
<td>155,2</td>
<td>31,5</td>
<td>128,7</td>
<td>21,0</td>
<td>123,4</td>
</tr>
</tbody>
</table>

% Incr. 62-68 0 12,5 20,0

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) Drivers</th>
<th>(2)</th>
<th>(3) Hoist Operators</th>
<th>(4)</th>
<th>(5) Labourers</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>36,5</td>
<td>155,8</td>
<td>33,5</td>
<td>129,3</td>
<td>23,0</td>
<td>128,1</td>
</tr>
<tr>
<td>1970</td>
<td>36,5</td>
<td>162,4</td>
<td>35,0</td>
<td>145,7</td>
<td>24,5</td>
<td>137,4</td>
</tr>
<tr>
<td>1971</td>
<td>36,5</td>
<td>170,0</td>
<td>35,0</td>
<td>159,3</td>
<td>24,5</td>
<td>155,7</td>
</tr>
<tr>
<td>1972</td>
<td>41,0</td>
<td>166,6</td>
<td>41,0</td>
<td>141,5</td>
<td>28,0</td>
<td>149,6</td>
</tr>
</tbody>
</table>

% Incr. 68-72 12,3 30,1 33,3

\[ \frac{A}{M} = \text{Average Weekly Earnings} \]
\[ \text{Minimum Weekly Wage} \]

The minimum wage increases can be divided into two periods. In the six years 1962 - 1968, the increases in minimum wages in two categories were small, whilst in the case of drivers there was no increase. In the period 1968 - 1972, minimum wage increases - particularly between 1971 and 1972 - were far more rapid than in the previous one.

The acceleration that began in 1971 in African minimum wages in the industry has been maintained. Further significant wage increases were announced in 1972. Minimum wages have risen substantially since then (Table 29).

These increases have been largely due to the stipulation in the 1972 Non-Artisan Agreement that all non-artisan minimum wages - from 4/5/1973 and thereafter half yearly on the first pay day in November and May each year - were to be adjusted by an amount equivalent to the rise in the consumer price index. Apparently because of a gentlemen's agreement among employers, these increases were brought forward to mid-1972. It should be noted that artisan minimum wages have been subject to the same adjustment at least as far back as the 1950's.

This measure is not the same thing as the compulsory cost-of-living allowances, published under War Measure No. 43 of 1942, which were frozen by the government in 1953. These allowances were on an official minimum scale and were made compulsory for all workers in industry receiving a weekly wage of less than 74/- a week. These allowances were on a sliding scale and were relatively higher for lower wage earners, and therefore were probably an important factor in the reduction of the ratio of Black to White wages which occurred between 1939/1942 and 1945/1946.

The effect of the automatic adjustment in the Witwatersrand building industry can be quite clearly seen from Table 29. We may compare the increase in minimum wages in two grades from 29/12/1969 to 16/1/1976. For instance, labourers' minimum wages increased from 24 to 53 cents per hour, i.e. an increase of 121 percent. In the case of crane drivers, (classed as operatives grade 1) minimum wages increased from 54 to 101 cents per hour, or an increase of 98,1 percent. These increases are in marked contrast to those in the period 1962 - 1968.
7.3.3 Wage Drift in Black Grades

A significant feature of Table 33 (shown in Section 7.3.2.) is the extent to which average weekly earnings exceeded minimum wages in the period 1962 - 1972. For example, column (2) shows that, by 1972, the proportion of drivers' average weekly earnings to their minimum weekly wages was 166.6 percent. Moreover, this proportion increased steadily from 1962 to 1972, despite the fact that minimum wages increased sharply from 1970 onwards. A similar pattern is found in the other two grades.

This gap between minimum wages and average earnings was not entirely due to compulsory fringe benefits. In 1972 the ratio of average actual wages per hour to minimum wages (p.h.) - or 'wage drift' - was 134.0 percent for drivers, whilst it was 113.1 percent for hoist operators and 117.1 percent for labourers. A discussion of the causes behind these adjustments is deferred to Sections 7.3.5 and 7.5.

In conclusion, reference may be made to the distribution of labourers in the industry according to their average weekly earnings. This is shown (for 1972) in Figure I, which is based on information from the Department of Statistics. The figure shows that there is a fairly even distribution of earnings within the unskilled occupational grade.
7.3.4 Inter-Industry and Inter-Regional Wage Comparisons

In this section, African wages in the building industry will be compared with: i) those in other sectors of the economy, ii) those in civil engineering and electrical contracting and iii) different regions where the building industry operates.
According to the Department of Statistics' Quarterly Bulletin of Statistics, the average annual real wage increase of Africans in construction in the period 1962 - 1973 was 8.0 percent as opposed to 3.6 percent in manufacturing. (9)

It is noteworthy that - since the African wage increases began in the Witwatersrand industry in the early 1970's - the relative position of building labourers on the Witwatersrand vis-à-vis other industries appears to have improved. Table 34 shows average hourly earnings of labourers in various industries on the Witwatersrand in 1968 and 1972. It is interesting that whilst building wages were - amongst those shown - the lowest in 1968, by 1972 the relative position of the industry had improved considerably.

<table>
<thead>
<tr>
<th>Year</th>
<th>Printing/Newspaper</th>
<th>Building</th>
<th>Engineering</th>
<th>Commerce</th>
<th>Electrical Contracting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>30,1</td>
<td>24,3</td>
<td>26,7</td>
<td>26,3</td>
<td>28,6</td>
</tr>
<tr>
<td>1972</td>
<td>39,1</td>
<td>45,9</td>
<td>39,8</td>
<td>39,9</td>
<td>48,7</td>
</tr>
</tbody>
</table>

* - excluding overtime.

Source: Department of Statistics, Report 01-20-01.

Secondly, African wages in building may be compared with those in civil engineering and electrical contracting. A feature that emerges when making such a comparison is that civil engineering wages are lower than those in both building and electrical contracting. The reason for the difference is partly because each industry has its own wage-regulating machinery, and also that the underlying demand and supply conditions for Black labour differ. For instance, semiskilled and unskilled wages in civil engineering are laid down by the Wage Board and each determination sets a minimum wage for each province. The inadequate wage status of Black workers in civil engineering is largely due to the fact that, because they work in rural areas, influx control does not work in their favour in that the supply of Black labour in rural areas would outstrip demand because there are so few industries in these areas.
Table 35 shows the gap in wages between building and civil engineering labourers in 1972/73. It is interesting that in every province, labourers in civil engineering earn less than their counterparts in the urban building industry.

Table 35: Average Actual Wages of Labourers in the Building & Civil Engineering Industries.

<table>
<thead>
<tr>
<th></th>
<th>Civil Engineering (February 1973)</th>
<th>Building (September 1972)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cape Province</td>
<td>Natal</td>
</tr>
<tr>
<td></td>
<td>26.0 c/hr</td>
<td>26.0</td>
</tr>
<tr>
<td></td>
<td>Orange Free State</td>
<td>23.0</td>
</tr>
<tr>
<td></td>
<td>Transvaal</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>36.5 c/hr</td>
<td>30.7</td>
</tr>
<tr>
<td></td>
<td>Cape Pen.</td>
<td>Durban</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bfrn.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W/Rand</td>
</tr>
</tbody>
</table>


The wage gap between building and electrical contracting is not nearly so marked. Table 36 shows average earnings of labourers in the building and electrical contracting industries in the Cape Peninsula and on the Witwatersrand from 1968 to 1972. For instance, in 1972 on the Witwatersrand, average weekly earnings of building labourers were R18.86 whilst those in electrical contracting were only R18.43. Table 36 however shows that this parity is due largely to the narrowing effect of the large wage increases in the Witwatersrand building industry from 1969 onwards.

Table 36: Average Earnings of Labourers in the Building & Electrical Contracting Industries. (R/week).

<table>
<thead>
<tr>
<th>Year</th>
<th>Witwatersrand</th>
<th>Cape Peninsula</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Building</td>
<td>Electrical Contracting</td>
</tr>
<tr>
<td>1968</td>
<td>11.67</td>
<td>13.66</td>
</tr>
<tr>
<td>1969</td>
<td>13.26</td>
<td>15.35</td>
</tr>
<tr>
<td>1970</td>
<td>15.16</td>
<td>15.90</td>
</tr>
<tr>
<td>1971</td>
<td>17.18</td>
<td>16.49</td>
</tr>
<tr>
<td>1972</td>
<td>18.86</td>
<td>18.43</td>
</tr>
</tbody>
</table>

Source: Dept. of Statistics, Report 01-20-01, pp.67 and 73.

Finally, an inter-regional comparison of unskilled wages can be made for the building industry. Two trends are identifiable
in this regard. Firstly, the wage increases on the Witwatersrand have eliminated the wage advantage in the early 1960's of building labourers in other regions. Table 37 shows the proportion of average weekly earnings of building labourers in major centres to those on the Witwatersrand in three different years. The change in areas like the Cape Peninsula, Port Elizabeth and Durban is striking.

Table 37: Index of Average Weekly Earnings of Labourers in Different Regions 1962 - 1972. Average Witwatersrand = 100.

<table>
<thead>
<tr>
<th>Region</th>
<th>1962</th>
<th>1967</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Peninsula</td>
<td>122.5</td>
<td>144.1</td>
<td>98.4</td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>104.7</td>
<td>103.4</td>
<td>71.5</td>
</tr>
<tr>
<td>East London</td>
<td>72.8</td>
<td>-</td>
<td>66.5</td>
</tr>
<tr>
<td>Pietermaritzburg</td>
<td>73.5</td>
<td>81.25</td>
<td>67.3</td>
</tr>
<tr>
<td>Durban</td>
<td>102.4</td>
<td>86.00</td>
<td>84.9</td>
</tr>
<tr>
<td>Pretoria</td>
<td>94.0</td>
<td>97.7</td>
<td>97.7</td>
</tr>
<tr>
<td>Witwatersrand</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Bloemfontein</td>
<td>79.7</td>
<td>74.6</td>
<td>68.8</td>
</tr>
</tbody>
</table>

Sources: (1) Dept. of Statistics, Report 01-22-02, p.18.

The information in the table shows that the relative position of building labourers on the Witwatersrand has improved substantially since 1962.

The level of unskilled minimum wages in the industry also differs substantially between regions. Table 38 shows - in descending order - the level of these wages in all areas where building industrial councils operate (including the O.F.S. Goldfields).
Table 38: Minimum Wages of Building Labourers in all Industrial Council Areas in 1974. (C/Hour)

1. Cape Peninsula 42c
2. Durban 42c
3. Pretoria/ Witwatersrand 40c
4. Boland 35c
5. Pietermaritzburg/ Natal Midlands 33.5c
6. Port Elizabeth 32c
7. East London 29c
8. Kimberley 29c
9. Bloemfontein 28c
10. Worcester 27c
11. O.F.S. Goldfields 27c
12. Grahamstown 22c
13. Natal/Northern Areas 21c
14. Queenstown 21c
15. South West Africa 12-20c


The differences between regions evident from Table 38 are reminiscent of those between the building and civil engineering industries in different provinces (Table 35). The regional pattern revealed in Table 38 is also partly due to differences in labour market conditions.

The trends revealed in Section 7.3.4 may serve to clear up certain inaccuracies which arise when wage comparisons are made between construction and other sectors. Evidence has been presented which suggests that average African earnings in building exceed those in civil engineering. Thus, official statistics on African earnings in the construction sector may be lower than African earnings in the building industry. For example, an industrial census in the late 1950's found that average earnings of Africans in building were £162 annually compared with an industrial average of £156. The problem is exacerbated by the fact that African earnings are seldom-if ever-disaggregated in official statistics into the three industries comprising the sector. Official comparisons are shown in Table 39.
The evidence in this section suggests that the building industry may be closer to the top of the industrial wage hierarchy than the position shown for the construction sector.

7.3.5 Wage Determination and Wage-Setting in Black Grades

One important overall trend noticeable in the minimum wage pattern of Black workers in the Witwatersrand building industry in the period studied is that minimum wages in key Black grades have retained their proportionality to artisan minimum wages. This trend is, however, reversed by artisan wage increases at reclassification agreements.

Clearly, this has partly been an attempt to prevent too big a gap opening up between different grades in the industry. This was the reason given by the director of the Witwatersrand MBA for the 1972 wage increases granted to workers. It appears that - in the absence of disparate wage increases at reclassification agreements - the cost of living adjustment to Black wages will help perpetuate this pattern.

The maintenance of differentials - or even their narrowing - is particularly characteristic of the operative grades. This can be deduced using the data in Table 29. In the 1966 Main Agreement, the percentage of the operative grade 1 minimum wage to that of artisans was 45.5 percent. By 25/10/1971 this percentage had risen to 53.2 percent while by 29/10/1973 it was 57.6 percent (Table 29). The minimum wages published in the latest Main Agree-
ment and Non-Artisan Agreement (Table 29) show that by the end of 1975 this proportion had dropped back to 55.7 percent. In the case of the lowest operative grade (i.e. operative grade 2 prior to 1969, operative grade 6 from 1969 to the end of 1974 and operative grade 3 thereafter) the proportion of their minimum wages to that of artisans' increased from 48.1 percent on 29/12/1969 to 53.2 percent in the latest agreements (Table 29). In the case of unskilled workers, this proportion increased from 23.0 percent on 29/12/1969 to 26.4 percent on 30/4/1973 and to 27.6 percent in the latest agreement (Table 29).

The ratios calculated from the latest agreements do not include the 75 cent increase in the minimum hourly wage of artisans (i.e. over and above the cost-of-living allowance) which was to be granted within one year of the date of publication of the agreement (see Section 6.4.3.2). If this increase is included in artisan wages, the reversal in the ratio for operative grade 1:artisan after the 1975/1976 reclassification agreement would be far more marked.

The evidence in Section 7.3.3. was that these minimum wages have been subject to considerable wage drift. This is due largely to the bargaining power inherent in the skill acquisition by semiskilled - and even unskilled - building workers. Certain specific examples of this pay-productivity link arose during the course of the field-work for the study. There was great dissatisfaction with the industrial council rating system in at least two firms consulted on the Witwatersrand.

We have already noted that section leaders in charge of various gangs on site do very responsible work. In the 1972 Non-Artisan Agreement, section leaders were classified as operatives grade 5. The two firms both paid all their section leaders operative grade 1 wages, since they were regarded as key workers on site. Steelfixers, too, were regarded by one firm as another highly-skilled and crucial team of African workers on site. They are responsible for building the wire mesh (which reinforces the concrete) into the shuttering, just before the concrete is poured. The impression of the manager of one firm was that they have to work with great speed and accuracy (often at
night) so that the concrete can be poured the next day. These workers were also paid the equivalent of operative grade 1 wages even though the agreement classified steelfixers as operatives grade 5.\(^{(12)}\)

Yet another example concerns one of the larger home-builders in the country at the time. The firm had a thatching section which applied this finish to most of the homes it built. Since thatching is not a building trade, White apprentices have never been trained, neither are minimum wages laid down for such work in industrial council agreements. However, the African in charge of each group of workers was said to earn R30 per week and his assistant R24 - rates comparable to those being paid to operatives grade 1 in the industry at the time (February 1975).

A more general reason behind the need to retain experienced semiskilled workers is the high cost to the building industry of having to replace its labour force due to high labour turnover (see Section 6.4.4.1).

The above discussion raises an interesting hypothetical question, viz. whether wages in the semiskilled and unskilled grades in the industry should be left unregulated by the industrial council. The argument here is that the freeing of wages from regulation may in fact improve the allocation of labour resources. The argument is difficult to support on two grounds. Firstly employers in building have monopoly power and have the most to gain from unregulation. On the supply side, workers are ill-informed about rates of pay for similar work in other parts of the industry. Wages for comparable work may be lower, for instance, in one part of Johannesburg than another since - under official contract labour procedures - workers cannot move from one firm to another without first returning to the homelands to be re-contracted. This is a powerful argument against unregulated wages.

Secondly, wage regulation may increase worker efficiency. It appeared during field-work that it was generally the bigger firms paying above industrial council rates. This is perhaps because these firms have taken a longer-term view of the need to retain their more skilled African workers. Coercing employers to pay a
minimum wage may make more sluggish employers see the true long-term scarcity value of their employees. That judgements about workers differ was evident from the considerable gaps in the wages of similar grades of workers on different sites within one firm surveyed during the field-work. It appeared that these variations occurred mainly because of the individual foreman's judgement. In discussions and interviews with representatives of large construction firms, it became apparent that in most instances all pay adjustments emanated from the foremen, who in most cases had absolute authority.

7.4 African Fringe Benefits

7.4.1 Government-Administered Fringe Benefits

We have already noted that artisans in the Witwatersrand building industry have had a pension fund, sick pay, benefit fund and medical aid. In most cases these funds were instituted in the early 1950's. Till 1969, Black workers in the industry were only covered by two large state-run schemes - the Workmens' Compensation Act and the Unemployment Insurance Fund.

All Black workers in the building industry are covered by the Workmens' Compensation Act. Employers pay the entire contribution and are assessed according to the risk involved in the relevant category of work. The Unemployment Insurance Fund is an income stabilisation measure arising out of the needs experienced by a workforce to insures against some risk of reduced or no income. The Fund covers most private industry in the country but excludes agricultural workers, foreign migrants, domestic servants and S.A.R.& H. employees, among others. Furthermore, any worker earning under R10,50 per week is not covered by the Fund. At current (1972) building wages all Blacks in the industry are covered by the scheme - however this was not the case in, say, 1962. The weekly contribution to the Fund is split equally between employer and employee but the bigger builders in the industry usually pay the full contribution (the contribution is usually only 1 cent per week).

7.4.2 Industrial Council Fringe Benefits

The only fringe benefit scheme established for Black
workers in the Witwatersrand building industry before 1969 was the Holiday Fund payments which date back to the 1950's. Contributions to the Fund are made by employers and are meant to compensate for loss of earnings during the annual holiday period.

A Pension Fund for all non-artisans in the industry was established in 1969. The Fund has three components - a lump sum death benefit, a minimum permanent disability grant and a pension plan. When the scheme was introduced in 1969 it was on the basis of ½ cent per hour contribution each by employer and employee. An employee ceases to be eligible for the death benefit at 60 years of age. The benefit is payable to one or more of the member's dependents. The benefits payable in June 1975 were R2 000 for the highest grades (operatives grade 1 and 2 etc.) and R750 for the lowest grade. Workers are covered for the death benefit 12 months after leaving the industry.

To qualify for the permanent disability benefit, the member must submit satisfactory medical evidence before the age of 55 that he is permanently disabled. The minimum benefits payable in June 1975 were R400 (highest wage grade) and R150 for the lowest grade. This payment is especially significant for building in view of the dangerous work associated with the industry. Payments from this Fund become operational where the provisions and payments are more favourable than those of the Workmen's Compensation Act.

The pension plan is closely modelled on the artisan scheme instituted for White workers, and hence requires little explanation. One aspect of the scheme is of particular interest in view of the fact that many African workers in the industry are contract workers who often do not return to the same employer. The scheme has been extended to allow for the following: if a member leaves the industry before he qualifies for a pension he can take a cash refund of his contributions within five years of leaving the scheme. Otherwise he may leave it in the scheme and continue contributing until retirement and get the normal pension. If a pension is not claimed within five years of the member leaving the industry, his contribution becomes part of the capital of the scheme. By the nature of the industry, many workers have failed to
collect their contributions in the five year period after leaving the industry. A major complaint of one official at the industrial council was that during the annual holiday period some workers would stay at home for up to six months. Often they would not collect their stamp books from their employer and if they returned to a different employer - their contribution would have to begin again since they had no proof of previous contributions. For these reasons the capital of the scheme has apparently grown rapidly in the past few years, with a simultaneous rise in the benefits paid. The current contributions entitle, e.g. labourers, to an annual pension payment of R496.

The Sick Pay Fund - introduced in 1969 - provides greater short-term benefits to Black workers than either the death benefit or pension plan. The scheme is funded by a ½ cent per hour contribution per worker (all non-artisan grades). This amounts to a small weekly contribution of 10 cents and is usually paid entirely by employers. Under the rules of the scheme, a member is entitled to sick pay if his period of absence from work is for a period of not less than four consecutive days. Payment to one member cannot be made for more than 65 days in any one year (in a cycle of one year from the day on which the illness began). At the beginning of 1975 the highest operative grades were being paid R2,50 per working day whilst labourers received R1,00. Artisans were at this stage paid R4,00. According to the ILO Medical Care and Sickness Benefits Convention, sick pay should achieve at least 60 percent of total earnings. Dowes Dekker notes that payments in sick pay schemes for Africans average about 45 percent of the minimum wage. In the case of the Witwatersrand building industry, both these standards are not achieved. Although artisan benefits are no higher proportionately, it should be noted that they are covered by a medical aid scheme.

7.4.3 Rationale for the Fringe Benefit Pattern

An important provision of both schemes is that the worker is not eligible for benefits unless he has a fairly stable record of employment in the industry immediately prior to the loss of income. For the sick fund, the member must have contributions, i.e. stamps, for at least 13 consecutive weeks prior to the ill-
ness, although apparently this rule has been waived by the industrial council. Under the death benefit, the member must have 16 stamps in the 20 months preceding death and one stamp in the 12 months immediately preceding death. Similar provisions apply to all artisan benefits. The provisions are intended to discourage workers from the widespread practice in the industry of taking unpaid leave during the contract, and also to work a full number of hours every week in order to earn the stamp. The pension plan also encourages return to the industry because there is reduced pay-out if the worker leaves the industry before retirement. We should note that the benefits do not discriminate against workers moving between different firms in the industry.

As long as the industry's Black employees were doing mostly unskilled work there was clearly little incentive for employers - as a means of stabilising the labour force - to spend money on fringe benefits. African workers in the industry are predominantly migrants. Mobility between the tribal home and the employer as well as mobility between employers is high. Fringe benefits involve cost and administrative problems, the solution of which may not show worthwhile returns. However, the writer would argue that the increasing scarcity of White skilled workers, which places a premium on the stability of trained and experienced African workers, introduces urgency to the consideration of fringe benefits such as sick pay, pension plans, employer-built hostels and medical benefits.

It is interesting that when the industrial council introduced the two funds on a non-compulsory, trial-run basis in the three years before it became legally binding, most of the larger firms participated voluntarily. Roberts Construction announced in 1973 that it was voluntarily introducing a non-contributory pension scheme guaranteeing a minimum pension of R15 per month for the lowest-paid rural worker - covering its 17 000 Black workers. To qualify for the pension the employee must have had at least ten years' service with the company.

The seriousness of the industry's intentions is also illustrated by the fact that it was one of the first to introduce these schemes. According to Douwes Dekker, only 11 percent of
African workers covered by industrial councils in June 1972 were covered by sick pay funds. In the same year, 391 106 of the African workers covered by industrial council agreements had a pension fund, of whom roughly 200 000 were in engineering and allied industries. Apparently only the SEIFSA industries introduced these schemes before the building industry in the Transvaal. According to a recent survey of the engineering sector by the Institute of Personnel Management, 36 percent of all firms surveyed were already providing medical aid cover for their Black workers.

7.5 Comparison of Earnings

In this section we want to look at the relative increase in African and White wages in the industry over the period studied. Coloured workers are excluded from this comparison. Unfortunately it is impossible to accurately compute the average African wage in the industry. This is because - as pointed out in the introduction - there is no published information on average earnings in all the de jure Black grades. Thus, wage increases in certain key Black grades are used for comparative purposes.

It is possible to show the rough order of magnitude of the average Black wage. On the basis of the minimum wage information in Table 29 and employment figures shown in Section 6.4.1.4, it is calculated that in the period May-October 1974 the average minimum weekly Black wage in the industry (assuming all artisans White and all operatives and unskilled Black) was 26.8 percent of the average White wage. The absolute figures were R21.60 and R80.43 respectively. Further, van der Worst estimated that in 1947/48 average annual African salaries and wages were 20 percent of those of their White counterparts in the Southern Transvaal building industry. The figure for all private industry in the region in the same year was 25 percent.

7.5.1 The Wage Gap on the Basis of Minimum Earnings

We begin by looking at relative movements in minimum wages. Evidence was presented in Section 7.3.5 which showed that minimum wages in certain key Black grades have kept pace with artisan minimum wages over the period studied. Figure II shows, for
the period 1962 - 1972, the percentage of minimum weekly wages in three Black grades to artisan minimum wages. We note that only in the case of drivers did this proportion show any marked decline over the period.
One important point to note from Figure II is the marked drop that occurred in these proportions as a result of the 1966 negotiations. For instance, in the case of hoist operators, the proportion fell from 38.5 to 37.6 percent. This drop also occurred when the new minimum wage schedules were published in the 1975/76 agreements (Section 7.3.5).

7.5.2 The Wage Gap on the Basis of Total Earnings

Figure II also shows for the period 1962 - 1972 the wage gap on the basis of average weekly earnings - excluding overtime. In general, it shows that this gap increased sharply in two grades but remained the same for the unskilled grade. The gap increased markedly in all three grades in the two periods 1964 - 1966 and 1969 - 1970. We should note, however, that the gap was not only increasing but that in all the years it was much wider than that based on minimum wages. In 1962 for instance, the percentage of the unskilled minimum weekly wage to the artisan minimum weekly wage was 23.8 percent whilst the gap based on average weekly earnings was 18.7 percent (Figure II). This suggests that the immediate effect of a more comprehensive definition of wages is to widen the wage gap perceptibly.

We may also consider whether there was any differential increase between artisans and other grades in fringe benefit payments. Table 40 shows weekly statutory fringe benefits of drivers, hoist operators and labourers as a percentage of weekly artisan fringe benefits. We note in particular that this percentage fell sharply in two grades in 1966 when the fringe benefit pattern for artisans was greatly improved (Section 6.4.3.2). This trend was partly reversed from 1969 when non-artisan fringe benefits were introduced on a compulsory basis by the industrial council.

(Artisan = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Drivers</th>
<th>Hoist Operators</th>
<th>Labourers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>16.3%</td>
<td>11.3%</td>
<td>0%</td>
</tr>
<tr>
<td>1963</td>
<td>16.1</td>
<td>8.0</td>
<td>0</td>
</tr>
<tr>
<td>1964</td>
<td>20.4</td>
<td>8.5</td>
<td>0</td>
</tr>
<tr>
<td>1965</td>
<td>41.0</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>1966</td>
<td>7.9</td>
<td>2.9</td>
<td>0</td>
</tr>
<tr>
<td>1967</td>
<td>5.4</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>1968</td>
<td>5.2</td>
<td>2.1</td>
<td>0</td>
</tr>
<tr>
<td>1969</td>
<td>5.5</td>
<td>4.6</td>
<td>0.7</td>
</tr>
<tr>
<td>1970</td>
<td>8.0</td>
<td>11.8</td>
<td>3.3</td>
</tr>
<tr>
<td>1971</td>
<td>15.1</td>
<td>21.1</td>
<td>18.3</td>
</tr>
<tr>
<td>1972</td>
<td>16.4</td>
<td>19.4</td>
<td>11.9</td>
</tr>
</tbody>
</table>

* - These figures were calculated 1) by subtracting average actual weekly wages from average weekly earnings, and then 2) by subtracting weekly overtime earnings from the result obtained in (1).

Sources: 1) Dept. of Statistics, Report No. 01-22-02.  
2) Dept. of Statistics, Report No. 01-22-06.  

These percentages were substantially reversed by the stamp increases announced as part of the new 1975 Main Agreement, as can be seen from Table 29. In the artisan grade, the stamp value immediately prior to the Agreement was R19.63. Assuming the average stamp earned by artisans after the Agreement was R30.61, the increase in the stamp value was 55.9 percent. The comparable increases for non-artisans were far lower: operatives grade 1 - 22.8 percent; lorry drivers 3 500 kg plus - 28.7 percent and labourers - 17.7 percent.

The overtime component was not included in Figure II.
From 1968 onwards, overtime earnings were a higher proportion of the minimum wage of artisans than any of the other three grades. This can be clearly seen from Table 41, which shows weekly overtime earnings as a percentage of the minimum weekly wages for bricklayers/plasterers, drivers, hoist operators and labourers.


<table>
<thead>
<tr>
<th>Year</th>
<th>Bricklayers/Plasterers</th>
<th>Drivers</th>
<th>Hoist Operators</th>
<th>Labourers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>1.5%</td>
<td>12.8%</td>
<td>6.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>1963</td>
<td>10.5</td>
<td>21.5</td>
<td>20.2</td>
<td>11.6</td>
</tr>
<tr>
<td>1964</td>
<td>17.8</td>
<td>22.5</td>
<td>23.6</td>
<td>14.9</td>
</tr>
<tr>
<td>1965</td>
<td>20.8</td>
<td>24.4</td>
<td>28.0</td>
<td>15.6</td>
</tr>
<tr>
<td>1966</td>
<td>16.6</td>
<td>25.0</td>
<td>18.8</td>
<td>16.1</td>
</tr>
<tr>
<td>1967</td>
<td>14.8</td>
<td>15.5</td>
<td>16.7</td>
<td>11.5</td>
</tr>
<tr>
<td>1968</td>
<td>24.5</td>
<td>23.7</td>
<td>15.2</td>
<td>15.8</td>
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<td>1969</td>
<td>28.7</td>
<td>21.3</td>
<td>14.4</td>
<td>19.7</td>
</tr>
<tr>
<td>1970</td>
<td>35.8</td>
<td>23.8</td>
<td>18.4</td>
<td>23.9</td>
</tr>
<tr>
<td>1971</td>
<td>34.7</td>
<td>25.1</td>
<td>19.9</td>
<td>24.3</td>
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<tr>
<td>1972</td>
<td>29.3</td>
<td>22.1</td>
<td>16.1</td>
<td>21.7</td>
</tr>
</tbody>
</table>


This trend of increasing relative overtime is analytically equivalent to an increase in White wages as a result of artisan labour shortages.

One aspect of overtime rates of pay is extremely important. In the Witwatersrand building industry, artisans move onto overtime rates of pay after 40 'ordinary' hours whilst non-artisans only earn overtime after 44 ordinary hours (similar rules apply in most other building industrial council areas in the country). This means, in effect, that White overtime earnings are earned in a shorter period of time than it would take non-artisans to earn
the same proportion of their minimum weekly wage.

7.5.3 Analysis of Trends

Two significant trends in the wage gap emerge from the previous analysis. Firstly, the gap between White artisans' average weekly earnings and that of African workers in the operative grades widened considerably in the period 1962 - 1972. If overtime earnings (which constitute roughly one-fifth of average weekly earnings) are included, the gap between artisans and labourers also increases. The analysis suggests that if minimum wage differentials are based, e.g. on a job evaluation study or reflect attempts by government agencies to prevent artisan and operative/unskilled wages from falling out of alignment, then the market distorts these differentials quite considerably. The second significant trend are the differential increases granted in minimum wages and fringe benefits to artisans vis-a-vis non-artisans at reclassification agreements. The evidence suggests that the narrowing in the minimum wage and fringe benefit pattern up to 1972 was reversed by the series of wage agreements in 1975/76.

The earlier sections in this study - which highlighted certain patterns of adjustment in the Witwatersrand building industry labour market - may now be applied in order to give a tentative unified explanation of the above wage trends.

With regard to the White artisan wage increases that occurred, they can be largely explained - on the supply side - by the fundamental assumption on the part of the registered unions that skilled wages must respond to conditions in the White labour market. In this context, the series of administrative adjustments to skilled labour shortages was also an important delaying factor. The smaller wage increases in the Cape Peninsula and Durban during this period point to the dampening effect on White wage increases brought about by the entry of Coloured artisans. Finally, the strong employer preference for White artisans must also be counted here as an inflationary factor in White wage increases.

On the demand side, the wage increases that occurred can be explained by dynamic shortages, i.e. the bottleneck in
White apprenticeship juxtaposed with the rapidity with which extra artisans were required during the two building booms in the period studied.

An important aspect of the reclassification negotiations was the vulnerability of the better-paid White workers, owing to the gap in earnings and the danger of job fragmentation and undercutting by workers not subject to the colour bar. The evidence in section 7 suggests that the White unions - equipped with the power of veto - have forestalled the anticipated drop in living standards by pushing for increased minimum wages, to the extent of even increasing existing wage differentials.

With regard to Black wages, the lower level of wages and wage increases can be explained by the lower productivity of their labour exacerbated by an elastic supply curve of labour vis-a-vis that of White labour. As Wilson has pointed out, whether or not an increase in labour productivity (i.e. a rightward shift of the MRP schedule) causes the wage rate to rise - and by how much - depends entirely on the elasticity of supply of labour. (28) We have seen that there are only two cases in which Blacks and Whites officially do the same jobs in building - at the artisan level and as crane drivers. When BIFSA introduced its White crane drivers' scheme in 1969, most MBA members on the Witwatersrand were paying these workers R1,50 per hour. (29) The minimum wage laid down for Black crane drivers in 1972 was R0,73 per hour (i.e. operative grade 1 wages). In 1974 the special stamp for White crane drivers was R15,55 per week (R19,63 for artisans) (31), whilst that of operatives grade 1 (under which grade is included crane drivers) was R6,04. Thus the wage of crane drivers had to be raised very considerably in order to attract Whites to the job.

The problem is compounded - on the demand side - by the fact that some building employers have considerable monopsony power, e.g. in the case of the Bantu Administration Boards who are the only legally-approved employers of African building artisans in urban areas.

The wage data also suggests that the registered unions have made little or no commitment to move away from the inflated wage structure brought about by the wage inflation of the 1960's.
and 1970's. The high level of wages have been perpetuated in the wage structure of the 1975 Main Agreement. It could be pointed out here that the series of adjustments to the colour bar in the Witwatersrand building industry have merely raised the threshold at which job reservation begins to apply. Evidence presented in Section 6 suggests that Whites moving out of the artisan ranks will be absorbed in protected occupations higher up, where the system of administrative adjustment to White labour shortages will presumably be perpetuated.

Finally, it has been shown that White artisan earnings on the Witwatersrand are seriously out of alignment with potential skilled labour supply, i.e. Coloured and African to the building industry. If one underplays the monopsony power of employers and the fact that influx control has been used selectively to create a high-wage urban African labour force, then Black wages in the industry are possibly more in line with fundamental forces in the labour market.

To state the argument slightly differently: it is tempting in South Africa to attribute the large wage differentials between White and Black groups as being due to inherent power differences. The existence of such power does not necessarily vitiate the doctrine that wages are equal to marginal revenue product. It is reasonable to conclude that given the lack of training, skills, motivation and the constraints of the colour bar, that Black wages tend to quality with a very low MRP (compounded by a highly elastic supply of Black labour). For South Africa, this writer would evaluate the effects of White unions on Black wages as operating partly through their attempts to keep the Black MRP schedule down (colour bar, political power, etc.). The conclusion is that the MRP schedule must be raised, through better training, education, job advancement, health services - in fact any factor that will raise productivity (which may of course be a rise in wages per se). Given the tightness of the South African labour market, it is possible that wages will follow productivity upwards. If they do not, and a large and obvious gap between MRP and wages opens up, then more weight must be given to the power of some group in keeping wages down.
7.6 Conclusions

One major difficulty in Section 7 was the interpretation of the wage data presented, i.e. the wage trends shown may quite easily be interpreted to mean more than one thing. Undue weight was therefore not given to the interpretation of the tables. However, it was felt that they were broadly suggestive of the pattern of adjustment outlined in Section 7.5.3.

Section 7.2 concluded that White wages in construction have increased relatively faster than those in other sectors of the economy in the past decade. With regard to the Witwatersrand building industry, it was shown that those components of average earnings which strongly reflect shortages in the labour market, i.e. overtime and wage drift, sharply increased their proportion of White artisan earnings in the period 1962 - 1972. The widening gap between White building artisans' earnings on the Witwatersrand and in other regions was also pointed out.

With regard to Black wages, two important trends emerged. The first is the rapid increase in non-artisan minimum wages in the industry, beginning in 1969, firstly through ad hoc adjustments but currently as a result of regular obligatory cost of living adjustments.

It is significant that recent data has shown that from mid-1972 to the end of 1975 - Black wage increases in construction exceeded those of Whites, whilst in the period 1963 - 1972, the rate of increase was almost the same. (32)

The second trend pointed to was the high level of wage drift occurring in non-artisan grades in the industry, even after substantial increases in minimum wages. These increases were linked to the high costs of recruiting and training non-artisan labour. These costs were also seen as one of the reasons for the introduction of a non-artisan fringe benefit pattern.

The data presented in Section 7.5 showed that whilst the gap in minimum wages remained relatively constant between all grades until 1975/76, the proportion that average earnings of hoist operators and drivers bore to those of artisans declined sharply in
the period 1962 - 1972. Another study has found a similar trend. Pursell(33) studied comparative movements in the skilled:unskilled wage differentials on the basis of minimum wages ('official differentials') and average earnings ('earnings differentials') for numerous industries covered by Wage Board determinations from the 1940's to the early 1960's. He found that the narrowing in official differentials (which was apparently Wage Board policy in the period) was not accompanied by a similar narrowing in the earnings differential.(34) He explained this independent movement as being related to the growth of the South African economy over the period and the artificial barriers erected to protect White workers.

Finally, the difficulties encountered in calculating the average Black wage precluded any detailed analysis of the overall movement in Black and White wages in the Witwatersrand building industry over time. This is unfortunate, since more general conclusions would then have been possible.
From 1/1/74, the increased benefits and wages were observed as part of a gentlemen's agreement between employers and union leaders. The figures for November 1974 were given to the writer by the general secretary of the National Development Fund, Pension Fund, and Stabilisation Fund. Although the new Main Agreement only became effective on 1/11/74, the increased benefits and wages were observed as a gentlemen's agreement.

<table>
<thead>
<tr>
<th>Year</th>
<th>EMPL</th>
<th>0.9%3</th>
<th>1.2%3</th>
<th>1.5%3</th>
<th>1.8%3</th>
<th>2.1%3</th>
<th>2.4%3</th>
<th>2.7%3</th>
<th>3.0%3</th>
<th>3.3%3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>20.0</td>
<td>10.0</td>
<td>5.0</td>
<td>2.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.25</td>
<td>0.125</td>
<td>0.063</td>
<td>0.031</td>
</tr>
<tr>
<td>1973</td>
<td>20.0</td>
<td>10.0</td>
<td>5.0</td>
<td>2.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.25</td>
<td>0.125</td>
<td>0.063</td>
<td>0.031</td>
</tr>
<tr>
<td>1974</td>
<td>20.0</td>
<td>10.0</td>
<td>5.0</td>
<td>2.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.25</td>
<td>0.125</td>
<td>0.063</td>
<td>0.031</td>
</tr>
</tbody>
</table>

Note: 
1. **IC** = Industrial Council; **NDF** = National Development Fund for the Building Industry; **R/T** = Building Industry Recruitment and Training Fund.
2. **Employer** and **Employee** refer to the contribution of employer and employee respectively to the benefit.
3. Where there is not shown (i.e. columns 1, 2, 3 and 7) the benefit is paid entirely by the employer.
4. A = artisan; MA = master artisan; S = supervisory.

*Source:* Building and Allied Industries' Official Handbook, various editions. The figures for November 1974 were given to the writer by the general secretary of the industrial council. Although the new Main Agreement only became effective in October 1975, the increased benefits and wages were observed as part of a gentlemen's agreement between employers and union leaders from 1/11/74.
<table>
<thead>
<tr>
<th></th>
<th>A/C</th>
<th>B/C</th>
<th>C/D</th>
<th>D/E</th>
<th>E/F</th>
<th>F/G</th>
<th>G/H</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/0</td>
<td>0.83</td>
<td>0.68</td>
<td>0.51</td>
<td>0.46</td>
<td>0.40</td>
<td>0.36</td>
<td>0.46</td>
</tr>
<tr>
<td>15/0</td>
<td>4.50</td>
<td>4.50</td>
<td>3.60</td>
<td>4.50</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>20/0</td>
<td>0.83</td>
<td>0.68</td>
<td>0.51</td>
<td>0.46</td>
<td>0.40</td>
<td>0.36</td>
<td>0.46</td>
</tr>
<tr>
<td>30/0</td>
<td>6.50</td>
<td>6.50</td>
<td>5.60</td>
<td>6.50</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>40/0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Notes:**
- Effective: during construction work (week-end).
APPENDIX II

TABLE 29 b - Full Occupational Wage Structure of Non-Artisans on 16/01/1976

<table>
<thead>
<tr>
<th>Occupation</th>
<th>R/p.h.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Operative Grade 1 (for the first 6 months as such)</td>
<td>1.07</td>
</tr>
<tr>
<td>2) Crane driver</td>
<td>1.07</td>
</tr>
<tr>
<td>3) Lorry 4 500 kg +</td>
<td>0.92</td>
</tr>
<tr>
<td>4) Operative grade 2</td>
<td>0.88</td>
</tr>
<tr>
<td>5) Lorry 0 - 4 500 kg</td>
<td>0.72</td>
</tr>
<tr>
<td>6) Operative grade 3 (on CW)</td>
<td>0.57</td>
</tr>
<tr>
<td>7) Operative grade 3 (not on CW)</td>
<td>0.50</td>
</tr>
<tr>
<td>8) Labourer (Area A/on CW)</td>
<td>0.53</td>
</tr>
<tr>
<td>9) Labourer (Area A/not on CW)</td>
<td>0.44</td>
</tr>
<tr>
<td>10) Labourer (Area B/on CW)</td>
<td>0.43</td>
</tr>
<tr>
<td>11) Labourer (Area B/not on CW)</td>
<td>0.34</td>
</tr>
<tr>
<td>12) Employee engaged on patrolling premises and guarding property</td>
<td>3.85 p/day</td>
</tr>
</tbody>
</table>

NOTES: 1. Area A/Area B distinction and construction work/not on construction work distinctions (see section 7.3.1).

2. The minimum wage for artisans was R 1.92 effective from Main Agreement, G.G. 17/10/1975, No 4875, p.7.

FOOTNOTES : SECTION 7

(1) See, for example Dept. of Statistics, Report No. 01-20-01, p.xvi.


(4) Information obtained from an unpublished mimeo through the U.C.T. School of Economics.


(9) As in Footnote (4). Similar trends are revealed by Horner, J.A., op.cit., p.4.

(9a) Information from van der Horst, S.T., African Workers in Towns, p.65.


(12) Ibid., p.7.


(14) Amendment of Main Agreement, G.G. 19/12/1969 No. 2589, p.3.

(15) Information obtained from the general secretary of the industrial council.

(16) Amendment of Main Agreement, G.G. 19/12/1969 No. 2589, p.3.

(17) Ibid., p.4.


(19) Ibid., p.196.

(20) Information from the general secretary of the industrial council.
(22) Thomas, W.H., op.cit., p.195.
(23) Ibid., pp.196-198.
(24) Information from the general secretary of the industrial council.
(29) Information from the general secretary of the industrial council.
(31) Information from the industrial council. Also see Table 29.
(32) Mercabank, Focus on Key Economic Issues : No. 15 - Price and Wage Trends, Figures 15 and 16.
(34) Ibid.
SECTION EIGHT

OCCUPATIONAL MOBILITY OF THE COLOURED PEOPLE IN THE WESTERN CAPE BUILDING INDUSTRY
8.1 The Relative Position of Coloured Labour in South Africa

We may begin by looking at the role of the construction sector in the economic life of the Coloured labour force. Table 42 shows the percentage of Coloured male employment accounted for by various sectors. The last column of Table 42 shows which sectors have absorbed the increase in employment from 1951 to 1970, and gives an indication of the present pattern of adjustment of the Coloured labour force.


<table>
<thead>
<tr>
<th>Sector</th>
<th>1951</th>
<th>1960</th>
<th>1970</th>
<th>% of Overall Increase in Total Coloured employment (male &amp; female) 1951 - 1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agric., forestry, fishing</td>
<td>94115</td>
<td>114820</td>
<td>107940</td>
<td>7,4</td>
</tr>
<tr>
<td>Mining &amp; quarrying</td>
<td>3750</td>
<td>4405</td>
<td>7350</td>
<td>1,2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>44642</td>
<td>57927</td>
<td>97260</td>
<td>34,0</td>
</tr>
<tr>
<td>Electricity, gas &amp; water</td>
<td>1552</td>
<td>2902</td>
<td>3000</td>
<td>0,5</td>
</tr>
<tr>
<td>Construction</td>
<td>38628</td>
<td>39909</td>
<td>76120</td>
<td>13,1</td>
</tr>
<tr>
<td>Commerce &amp; Finance</td>
<td>23104</td>
<td>38948</td>
<td>58650</td>
<td>20,5</td>
</tr>
<tr>
<td>Transport &amp; Communication</td>
<td>14091</td>
<td>16453</td>
<td>26950</td>
<td>4,6</td>
</tr>
<tr>
<td>Community, social &amp; personal services</td>
<td>32815</td>
<td>42558</td>
<td>50190</td>
<td>17,1</td>
</tr>
<tr>
<td>Unemployed &amp; unspec.</td>
<td>32854</td>
<td>57946</td>
<td>29100</td>
<td>4,5</td>
</tr>
<tr>
<td>Total economically active</td>
<td>285551</td>
<td>375868</td>
<td>456560</td>
<td>100,0</td>
</tr>
</tbody>
</table>

In 1970, agriculture was still the sector employing the largest amount of Coloured male labour. However, between 1951-1970 its relative share decreased notably whilst from 1960 the total amount of Coloured male labour has also declined. Thomas(1) points out that this is likely to be maintained and, in fact, accelerate in the future, implying increasing urbanisation and more male labour available for employment in the secondary and tertiary sectors (i.e. urban employment). Mining is relatively insignificant as an employment sector for Coloured males (only 1.6 percent in 1970) and is likely to remain so, based as it is in the northern provinces where the Coloured population is numerically under-represented.

The manufacturing sector is the most important source of employment for Coloured male labour after agriculture, having increased its share of employment from 15.4 percent in 1960 to 21.3 percent in 1970. However, in contrast to agriculture, it is currently the most rapidly growing employment sector for Coloured people.

Manufacturing is followed closely by construction, which accounted for 16.7 percent of Coloured male employment in 1970. It is noteworthy that whilst manufacturing is a much larger sector than construction, it does not employ many more Coloured males than construction does.

Following agriculture, manufacturing and construction, the tertiary sector is the largest employer of Coloured males. It also has rapidly expanding employment opportunities for Coloured males. The main growth sector is commerce where employment (male and female) virtually doubled from 41000 to 80000 between 1960 and 1970. (2)

The manufacturing, construction and tertiary sectors accounted for 51 percent of Coloured male employment in 1970, whilst construction alone accounted for 21.8 percent of all non-agricultural male employment in that year. These three sectors also absorbed about 70 percent of the increased economically active between 1951 and 1970.

Thomas(3) argues, largely on the basis of similar trends to those revealed by Table 42, that secondary industry, construction and commerce are the three major areas for the future dynamic growth
of employment opportunities for Coloured people, although this will depend partly on the regional growth pattern of the Western Cape where the Coloured population is concentrated. Labour studies can justifiably concentrate on the prospects for occupational mobility of the Coloured people in these sectors since upward mobility should further increase employment opportunities here. In Section 8 we are considering the scope for advancement in the building industry only.

We must now consider the occupational advancement of Coloured labour in the economy in order that their role in the building industry may be put into perspective. Table 43 shows the occupational structure of the Coloured male labour force and the major changes from 1960 to 1973.

**Table 43: Occupational Structure of Coloured Male Labour 1960-1973**

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1970</th>
<th>1973</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>000's</td>
<td>%</td>
<td>000's</td>
</tr>
<tr>
<td>White collar</td>
<td>59,5</td>
<td>15,5</td>
<td>82,1</td>
</tr>
<tr>
<td>Management</td>
<td>0,3</td>
<td>0,1</td>
<td>0,4</td>
</tr>
<tr>
<td>Prof. &amp; technical</td>
<td>6,5</td>
<td>1,7</td>
<td>10,6</td>
</tr>
<tr>
<td>Skilled &amp; s/skilled services</td>
<td>32,3</td>
<td>8,4</td>
<td>48,9</td>
</tr>
<tr>
<td>Unskilled services</td>
<td>20,4</td>
<td>5,3</td>
<td>22,2</td>
</tr>
<tr>
<td>Blue collar</td>
<td>161,4</td>
<td>42,1</td>
<td>208,2</td>
</tr>
<tr>
<td>Artisans</td>
<td>18,7</td>
<td>4,9</td>
<td>29,9</td>
</tr>
<tr>
<td>S/skilled</td>
<td>53,8</td>
<td>14,0</td>
<td>79,2</td>
</tr>
<tr>
<td>Unskilled</td>
<td>88,9</td>
<td>23,2</td>
<td>99,1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>90,0</td>
<td>23,5</td>
<td>105,0</td>
</tr>
<tr>
<td>Unspecified</td>
<td>72,6</td>
<td>18,9</td>
<td>82,5</td>
</tr>
<tr>
<td>Total econ. active</td>
<td>383,5</td>
<td>100,0</td>
<td>477,8</td>
</tr>
</tbody>
</table>

*Source: Adapted from the Report of the Theron Commission, RP 38/76, p.85.*

For the purposes of this study, we may concentrate on the occupational structure at the blue-collar level. In 1973 almost half of
all economically active Coloured males were classed as blue-collar workers. Their upward progress within this strata has been slight - in 1973 only 17.7 percent of Coloured male blue-collar workers were classed as artisans, whereas 39.4 percent and 42.8 percent were classed as semiskilled and unskilled workers. The barriers to the entry of Coloured labour into the artisan category appear again at the interface between blue collar and white collar jobs, and explain the under-representation of Coloured males at the white collar level.

As Cilliers (4) has pointed out, the vast majority of the urban Coloured population may be classed as a blue collar working class dependent upon the earnings of semiskilled and unskilled wage earners, although a rapidly growing minority may be classified as lower middle class white collar workers.

8.2 The Relative Position of Coloured Labour in the Building Industry

The ratio of Coloured to White artisans differs widely from one industry to another as the following figures (for 1973) show: electrical trades (1:567), metal and engineering (1:37), hairdressing (1:32), motor trades (1:19), printing (1:10), diamond cutting (1:10), food (1:17), building (1:2) and furniture (1:0.8). In 1974 out of a total of 111 218 new apprenticeship contracts registered in the country, 83.2 percent were in respect of Whites, whilst only 12.1 percent and 4.5 percent were in respect of Coloureds and Asians respectively. Therefore it appears that in most sectors, the progress of Coloured males is blocked at the artisan level. Table 44 shows the racial composition of building apprentices and artisans in South Africa in recent years. These figures are not limited to private construction only.
There has been a remarkable increase in the proportion of Coloured and Asian artisans in the labour force whilst, from at least as early as 1969, the number of Coloured and Asian apprentices has exceeded the number of Whites. This latter trend is to be expected since it is this ratio which brings about change in the racial composition of the artisan labour force. It will be interesting to see whether the 1975 reversal of the trend will continue in the future.

Table 45, which shows the average monthly gross cash earnings of Coloured employees in selected sectors supports the contention that the upward mobility of Coloured labour has been relatively greater in the building trades than in other sectors.

Source: Race Relations Survey (1975, pp. 175-195.)
Coloured people also dominate the artisan ranks in the furniture and printing industries.

The large proportion of Coloured and Asian artisans is due largely to their occupational mobility in the coastal provinces. This conclusion may be drawn from Table 46. The figures are based on a sample of building contractors in the three regions cited, and shows the number and percentage of White, Coloured and Asian artisans (including general foremen, foremen and leading hands).

**Table 46: Racial Composition of an Artisan Sample in three Areas on 29/6/1973.**

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Coloured</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natal (all industrial council areas) (1)</td>
<td>2822</td>
<td>2631</td>
<td>2472</td>
<td>7925</td>
</tr>
<tr>
<td></td>
<td>35,6%</td>
<td>32,2%</td>
<td>31,2%</td>
<td>100%</td>
</tr>
<tr>
<td>Port Elizabeth &amp; East London (all industrial council areas) (2)</td>
<td>1098</td>
<td>3017</td>
<td>67</td>
<td>4182</td>
</tr>
<tr>
<td></td>
<td>26,3%</td>
<td>72,1%</td>
<td>1,6%</td>
<td>100%</td>
</tr>
<tr>
<td>Western Province &amp; Worcester (all industrial council areas) (3)</td>
<td>1028</td>
<td>8023</td>
<td>384</td>
<td>9435</td>
</tr>
<tr>
<td></td>
<td>10,9%</td>
<td>85,0%</td>
<td>4,1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(1) Based on a sample of 1026 employers.
(2) 423 employers.
(3) 812 employers.

Source: Report of the Industrial Tribunal 31/10/74, pages 27, 40 and 44.

In the period 1960-1973, whilst the total number of artisans in Port Elizabeth increased from 1 448 to 4 145, the proportion of Whites declined from 49,5 percent to 18,2 percent. (6a) The rapid entry of Coloured and Indian artisans in Durban will be discussed in Section 8.4.4.

The dominance of Coloured and Asian artisans in the two coastal provinces contrasts with their virtual absence in the Transvaal and Orange Free State. From Table 46 we see that Coloureds have made the greatest progress in the Western Cape - their dominance
in fact stems back many years whilst the upward mobility of Coloureds and Indians in Durban and the Eastern Cape has been more recent.

A study with some historical perspective of the mobility of the Coloureds in the Western Cape industry may have the following benefits: a) it may locate problem areas that have arisen in the occupational mobility of Coloured labour and show how (or in fact whether) they have been overcome. This may have relevance for areas e.g. Durban, which still have a relatively high proportion of Whites in the labour force, and b) it may provide further insight into the dynamics of absorption of Coloureds into occupations once closed to them, and c) the analysis may be generalised to the building industry in other parts of the country and to other industries to see whether the same forces that have worked in the Western Cape may be occurring elsewhere.

Section 8.2 looks at the development of the barriers to a fuller utilisation of Coloured labour in the Western Cape building sector as well as assessing the impact of these barriers to Coloured mobility. Section 8.3 deals with the practical effect of these measures over time and assesses the current utilisation of Coloured labour in the industry.

8.3 Barriers to the Full Utilisation of Coloured Labour in the Western Cape Building Industry.

8.3.1 Job Reservation Determination No. 13.

By all accounts, conventional barriers have had a much greater impact on the employment of Coloured artisans in the industry than statutory barriers (hereinafter after 'statutory barriers' refer solely to job reservation Determination No. 13. Chronologically too, the conventional colour bar in the industry preceded the job reservation determination. However, we will begin by discussing statutory restrictions since they have often been cited as a reason for the poor utilisation of labour.

The scope of Determination No. 13 was not wide and only applied to particular trades still dominated by Whites in the Western Cape. There was no blanket ban on the employment of Coloured people on skilled work as was the case with job reservation De-
termination No. 6 in the building industry of the Transvaal and Orange Free State.

The industrial tribunal, investigating the Western Cape industry stated in its report that it was reluctant to reserve for White artisans trades where Coloured workers predominated or even had a large share of employment, since this could have a disruptive effect on Coloured employment. A strong possibility existed that a multiracial trade could be reserved for Whites even though no Whites would come forward to do the work. Coloured artisans have in fact been predominant in some of the skilled trades in the Western Cape industry for over 100 years. The racial composition of the labour force in various trades in the Western Cape is shown in Table 47. A close study of the table suggests that there were only six trades in Cape Town in 1959 where White artisans were predominant.

Table 47: Racial Composition (%) of Artisans in the Boland, Cape Town and Worcester in 1959.

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Coloured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C(1)</td>
<td>B(2)</td>
</tr>
<tr>
<td>Bricklayers, bricklayer-plasterers</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Carpenters, carpenter joiners</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Joiners</td>
<td>85</td>
<td>60</td>
</tr>
<tr>
<td>Wood machinists</td>
<td>85</td>
<td>60</td>
</tr>
<tr>
<td>Shopfitters (Wood)</td>
<td>95</td>
<td>-</td>
</tr>
<tr>
<td>Shopfitters (Metal)</td>
<td>95</td>
<td>-</td>
</tr>
<tr>
<td>Electrical wiremen</td>
<td>95</td>
<td>85</td>
</tr>
<tr>
<td>Glaziers</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Painters</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Plumbers</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>Polishers</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>Reconstructed Stone &amp; Terrazzo workers</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>Stone masons, letter cutters &amp; stone dressers</td>
<td>98</td>
<td>95</td>
</tr>
<tr>
<td>Wall &amp; floor tilers</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

(1 C - Cape Town; (2 B - Boland; (3 W - Worcester.

Source: Report by the Industrial Tribunal 22/1/1962, p.36.
Determination No. 13 (in terms of Section 77 of the Industrial Conciliation Act, 1956, as amended) applied to urban areas in the magisterial districts of Durban/Inanda/Pinetown, Pietermaritzburg/Richmond (Natal), Vryheid/Dundee/Estcourt/Newcastle, East London, Port Elizabeth, Albany, Queenstown and Cape Town/Wynberg/Simonstown/Bellville/Paarl/Wellington/Stellenbosch/Somerset West/Worcester. The following building trades were reserved for Whites in the Western Cape (broadly the last set of areas): stonemasonry, marble masonry, joinery (in workshops), woodmachining (in workshops), electrical wiring, letter cutting and stone decorating, shop office and bank fitting. Artisans in these trades probably account for no more than 10 percent of the artisan labour force.

Similar trades were reserved in each of the other areas, although this depended to some extent on local conditions. In Natal, additional trades such as bricklaying, plastering and carpentry were reserved for Whites. This tended to make the determination a highly complicated measure.

'Urban area' was defined in the Determination to exclude:

"any Native area, any area which on the date of Determination has been declared in terms of Section 20 of the Group Areas Act, 1957, to be a group area for occupation and/or ownership by members of the Coloured group". (9)

Thus Coloured artisans were free to practice the reserved trades in Coloured group areas although this was a somewhat minor concession.

There were further complication exemptions, most of which were to prevent further disruption of the status quo. Any Coloured or Asian artisan employed on reserved work on or prior to the date of publication of the Determination was totally exempt from it. Furthermore, a Coloured or Asian person already indentured in a reserved trade on the date of publication of the Determination was exempted from its provisions on the completion of his contract of apprenticeship or for any contract of service.

Finally, the provisions of the Determination did not apply to people indentured in terms of the Apprenticeship Act (1944) whilst such person was serving on apprenticeship. This means
in theory that a Coloured apprentice may serve his time with an employer in an urban area (as defined above) but on qualification may only seek work in a Coloured group area. In its practical workings, all parties to an apprenticeship contract in a designated trade in any of the reserved occupations where the prospective applicant is Coloured are advised before signing it that employment in this area in such reserved occupation is prohibited and that application for exemption (to the Department of Labour) has to be made if the apprentice is to continue in employment after qualifying as an artisan.

The impact of the Determination was clearly further lessened by these exemptions. A number of ad hoc exemptions were subsequently granted. These will be discussed in Section 8.4.2. In fact, one might be criticised for underplaying these barriers, since the impact of the Determination may have influenced employers not to promote workers into jobs where there was actually no legal work reservation. This is pointed out by van der Horst -

"while they (the job reservation determinations) have not in fact prevented the increasing employment of Coloured persons in an increasing variety of positions higher up in the industrial ladder, they have nevertheless almost certainly had an inhibitory effect". (10)

8.3.2 The Apprenticeship Act

If one reduces to a factor of minor importance these legal barriers, then almost the full extent of the remaining barriers are attributable to non-specific but nevertheless very real barriers to Coloured mobility. The two main barriers in this regard are those associated with the Apprenticeship Act and, secondly, discrimination practiced by employers, independently or under pressure from White working staff. They will be dealt with in this order.

The minimum education standard laid down by the building apprenticeship committee for entry to the trades (in 1930) was Std. 6. (11) In 1927 in the entire Cape Province the number of male and female Coloured pupils in Std. 6 was 785, whilst the comparative figures for Whites was 13 128. (12) Furthermore, many of the Coloured students who attained Std. 6 wished to become teachers.

Thus, on the basis of the educational qualification
alone, Coloured people were heavily disadvantaged in their attempt to become indentured. Leslie points out that whilst in the early days of apprenticeship committees exemption was sometimes granted to Coloured boys who had not attained the minimum education standard - by 1929 the Cape Town committees were far more rigid in their requirements. He argued further that the contemporary view was that in trades such as bricklaying, painting and plastering, the educational requirement of Std. 6 was considered unnecessarily high and simply created unnecessary scarcity. In the light of this opinion, the education requirement must have proved particularly frustrating to unqualified Coloured youths who felt excluded for an unnecessary reason. This feeling was probably bolstered by the fact that in 1930, in the Cape Town area, 90 percent of all bricklayers and plasterers and 40 percent of all carpenters were Coloured. (13)

In 1927 there were 282 White but only 56 Coloured building apprentices at the Cape Technical College. By 1928 the number of Whites had increased to 404 whilst the number of Coloureds indentured was only 72. (14) In 1946 out of 661 apprentices at the Cape Town Technical College, only 86 attended the Coloured section. Nearly all of the 661 were building apprentices. At the time, however, Coloured artisans outnumbered Whites in the occupations of bricklaying, painting and plastering. (15)

The passing of the Apprenticeship Act has created other barriers to the entry of Coloured people to the skilled trades. The Cape Coloured Commission (U.G.54,1937) pointed out that by the time Coloured boys reached the required education standard, many exceeded the age limit prescribed before which apprenticeship must have begun (the Act at the time laid down that one may not become an apprentice if on the termination of the contract he would be over the age of 26. (16) They also pointed out that the necessary facilities for Coloureds attending technical classes were in some instances absent or only available in part. In 1926 for example none of the large urban centres except Cape Town made adequate provision for technical college facilities for Coloured students. (17)

In order for a firm to be allowed to take an apprentice, it has to satisfy the apprenticeship committee it can give him
regular work and work of such a nature as to cover all aspects of the trade in which he was indentured. According to the Cape Coloured Commission this immediately weakened the chances of Coloured youths being indentured at all because their best chance of becoming an apprentice was with Coloured builders who were few and far between: the few Coloured builders were small contractors who thus did not fit the apprenticeship committee's requirements. (18)

At the time of the Commission's report, Whites in large and increasing numbers were desiring apprenticeship in the trades. The employing class, being very largely White, preferred taking on Whites as apprentices: in the words of the commission "this preference for one of the same race or colour is on the whole considered natural by Europeans in South Africa". (19) Thus most White employers at the time had a strong preference for White apprentices - a significant point. Evidence was also submitted to the Commission that the apprenticeship committees were in fact exercising their influence to persuade employers to indenture White rather than Coloured men but the Commission was of the opinion that the charge had not been substantiated. (20) This is an important point because in practice an apprenticeship committee may refuse an apprenticeship to a Coloured person for very slight reasons, e.g. separate toilet facilities for the various race groups at the place of employment. The Department of Labour often insists that Coloured apprentices work apart from their White counterparts and that separate facilities be instituted for them.

Certain other barriers created by the operation of the Apprenticeship Act but not affecting the building industry have been pointed to by the Theron Commission. (21) With regard to apprenticeship committees, it pointed out that whilst Coloureds may serve on these committees, very few have done so. The building and furniture industries were noted as two exceptions in this regard. The Commission pointed out that some of the White sub-committees are unsympathetic to Coloured aspirants. (22)

Thus the first very real barrier which potential Coloured artisans encountered were those associated with the Apprenticeship Act. The evidence and opinions presented suggest that the Act has fostered institutions which have the power to
discriminate against potential Coloured artisans. There is certain factual evidence that it has had this effect.

The setback to Coloured people in this regard, however, never drastically changed the racial composition of the building trades in favour of Whites in the following decades. By all accounts, from research and interviews, the wet trades particularly have remained predominantly Coloured and Malay. The writer considered this to be an important contradiction to resolve since it may offer valuable insights into the dynamics of Coloured occupational mobility.

Factors such as barriers at the apprenticeship level juxtaposed with prominence in the artisan labour force imply that many Coloured people are being employed as artisans without having undergone formal apprenticeship. This factor has already been mentioned as being of some importance in the building trades by van der Horst.\(^{(23)}\) In 1972 in the Cape Peninsula building industry, 2 291 (or 16,9 p/cent of the 13 522 Coloured artisans receiving holiday fund payouts at the end of the year were employed as artisans but had no evidence of qualifications. Of the 929 White artisans employed at the time, only 29 (or 3 percent) were in a similar position. The earlier Industrial Tribunal reported that out of 1 500 Indian workers employed as artisans by Indian Master Builders in Durban in the early 1960's, only 750 were in fact qualified artisans. The lower incidence of unqualified Whites is probably due to the easily established fact that building apprenticeship committees at least in the recent past have often admitted White youths who do not have the required education qualification.\(^{(25)\ 26}\)

According to the first industrial tribunal, even in trades requiring a high degree of skill, such as electrical wireman, employers were able to train unskilled Coloured workers on-the-job and then support their application for electrician's licences. This was deemed to be unfair competition with Whites who had to complete an apprenticeship before they could obtain a wireman's licence. According to one employer giving evidence to the tribunal, there were 33 Coloured electrical wiremen in the Cape Town area at the time who had reached artisan status without undergoing a term of apprenticeship.\(^{(27)\ 26a}\) The fact that the unions have accepted the
artisan status of the unqualified Coloured workers has eased their entrance to the skilled trades, since employers are likely to regard union membership as sufficient evidence of skill.

8.3.3 Conventional Barriers on the part of Employers and White Workers.

The second important factor to retard the employment of Coloured artisans in the building industry has been colour prejudice on the part of employers. In evidence before the Cape Coloured Commission, one master builder:

"stated that the efficiency of the Coloured man was good ... but he was of the opinion that colour prejudice was at the root of the objection to the employment of Coloured persons". (28)

Whilst there was also much evidence to the contrary, the Commission heard evidence in Cape Town:

"that the Coloured people were not as efficient as Europeans, that they were irregular in their time keeping ... that they were less interested in their work, that many European employers preferred to employ members of their own race, and that in view of the fact that wages were fixed at a certain standard, many employers showed a preference for engaging Europeans". (29)

The Commission found that the general tendency of White public opinion at the time favouring the employment of Whites, the fact that the great majority of employers were White, and the lack of compulsory primary school education for Coloureds, all influenced the employer in commerce and industry to employ Whites.

Employers also appear to be heavily influenced by the reaction of their White workers to the employment of Coloured workers on similar work. The earlier industrial tribunal found that employers in Cape Town seldom made use of Coloured artisans in their joinery or shop, office and bank fitting workshops for fear that their White staff would leave their service. (30) Today, as far as the writer is aware, there is only one joinery shop in Cape Town where White and Coloured joiners work separately. Apparently the five White joiners (all over 60 years old) employed by this firm occupy one room whilst another room elsewhere in the building is full of Coloured joiners. The arrangement was apparently demanded by White workers and not instituted by management.
In this connection, the Factories, Machinery and Building Work Act, and the regulations issued in terms of it, requiring that members of different racial groups may only be employed in separate places of work and must be provided with separate rest rooms, canteens, lavatories and entrances, has been advanced as a fact favouring the employment of Whites rather than Coloureds because of the cost of providing separate facilities. However, the phenomenon of separate workplaces is apparently so widely transgressed today, with workmen of different races even working at the same workbench, that it is probably not a great barrier anymore.

In its investigation of the Durban industry, the earlier industrial tribunal found that "it is obvious that the White artisans in this area do everything they can to prevent any infiltration of Coloured artisans". The fact that White artisans were still well represented in most of the trades in Natal was ascribed by the tribunal to the fact that White artisans refused to do the same work alongside Coloured people. In evidence, members of the Durban MBA pointed out that the majority of their members in fact applied job reservation themselves by giving preference to Whites if available. Some stated explicitly that they in no circumstances engaged Coloureds or Indians as artisans, arguing:

"Besides, employers would not just dare to employ Coloured artisans on the same work as Whites, because the latter would simply down tools. Under such circumstances, it was therefore not necessary that reservation be applied ..."

The constitution of the Durban MBA also provided that only master builders who employed White artisans exclusively could become members, but the tribunal found that the rule was not strictly applied because many White members at the time were already having to employ Coloured people as artisans.

A representative of the Amalgamated Society of Wood-workers, which had an all-White membership in Natal at the time (only its Cape branches were multi-racial) stated that many White artisans in Durban would rather down tools than work with Coloured artisans on the same job. He was also aware of occasions on which there had been friction between White and Coloured artisans on the job.
There is also evidence of tacit agreements (or 'self-imposed job reservation') to exclude Coloured and Indian workers from specific trades. In evidence heard by the earlier industrial tribunal in Cape Town, the South African Operative Masons' Society (founded in 1896 by White masons) stated that it had always been its policy not to admit Coloured people as apprentices or as artisans. Another employer stated that it was unnecessary to reserve the trade of electrical wiring for Whites because reservation was already applied in practice. He stated that this followed naturally from the fact that 95 percent of employers in the trade were White. In Durban, Indians were excluded from the plumbing trades by similar tacit agreements.

The introduction of the Apprenticeship Act with minimum wages for apprentices also acted as a brake on the employment of Coloureds as apprentices. In the opinion of the Cape Coloured Commission (of 1938):

"the Act allows no discrimination in wages between Europeans and Cape Coloureds, so that, apart from any evasion of the law, the Cape Coloured is unable to discount his inferior education, the prejudice against him, or the preference for European labour, by accepting lower remuneration during apprenticeship. Reference has been made to conditions prior to the promulgation of the Act. There was an almost complete absence of government control over the conditions of employment not only of apprentices but of all other classes of labour. No government regulation of wages existed. Employers in the majority of cases could and did pay different rates for all classes of work. Juvenile labour could be employed without let or hindrance. In the opinion of the Commission the termination of these conditions has played a large part in restricting the employment of Coloured youths". (37)

At the time of the Commission, there was apparently also a tendency among European employers to differentiate in wages between Europeans and Cape Coloureds:

"... we find that a common attitude among them is that the disabilities attaching to their colour force them, though they be in principle in favour of 'equal pay for equal work' to accept lower wage rates and to undercut both in unskilled and skilled work". (38)

The material and analysis presented in this section suggest that in the past there have been three barriers to the fuller
utilisation of Coloured labour in the Western Cape building industry. Firstly, legal barriers have prevented Coloured workers from practicing in reserved trades. Besides, they are dissuaded from becoming apprenticed in these trades because they may not be granted an exemption to practice their trade in an urban area on qualification.

The second set of barriers are those associated with the passing of the Apprenticeship Act. The factors counting against the Coloured people in their attempts to become apprenticed were their poor education, the attitude of apprenticeship committees and compulsory minimum wages for apprentices.

The third barrier is the attitude of employers. Given a hypothetical situation where a Coloured person and a White apply for a job, both of equal education and assuming no legal barriers, the employer may consistently choose a White to fill the post. This problem is exacerbated by the fact that if the occupation has a minimum wage, employers cannot discount the so-called 'risk' of employing Coloured labour.

8.4 An Assessment of Current Trends in the Utilisation of Coloured Labour.

8.4.1 The Adjustment Process.

Before discussing changes that have come about in the utilisation of labour, one crucial assumption we have made in this regard must be stated and justified. It is that shortages of White labour trigger changes in the utilisation of Coloured labour in the industry at the artisan level. This is strongly suggested by events in the industry in the Western Cape over the past 30 years.

The earlier industrial tribunal found that there had been a rapid increase in the employment of Coloured people as artisans in the Cape and Natal in the period beginning with World War Two. (39) As a result of mobilisation and the postwar building boom, there was a general shortage of skilled White artisans -
isted, Coloured persons were gradually employed but in ever-increasing numbers. The result was that after the War Coloureds and Asiatics especially were established so firmly in certain trades that they became a serious menace to White artisans in certain respects. (40)

One piece of evidence strongly suggesting that this has been the case is the higher proportion of Coloured artisans in the rural building industry. The explanation for this would seem to lie in the fact that as White artisans have migrated from the rural to the urban building industry, their place has had to be filled by Coloured artisans. This was in fact the reason why job reservation Determination No. 6 did not reserve building work in rural areas for White artisans. The industrial tribunal investigating Determination No. 13 found that in 1960 64.2 percent of all artisans in the Cape Province were Coloured whilst this proportion was 80.3 percent in the rural areas of the province. (41) This gives further support to the hypothesis that Coloured artisan mobility has been more rapid where White shortages are greater.

8.4.2 The Impact of Determination No. 13.

We may begin by looking at the impact of job reservation Determination No. 13 on the racial composition of the artisan labour force in reserved trades in the Western Cape. Table 48 shows the racial composition of the artisan labour force in the reserved trades in November 1959 and 1972. In three of these trades the racial composition of the labour force changed in favour of Coloured artisans.

<table>
<thead>
<tr>
<th>Trade</th>
<th>1959</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joinery</td>
<td>White 80</td>
<td>Coloured 20</td>
</tr>
<tr>
<td>Woodmachining</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>Shopfitting</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Letter cutting &amp; stone decorating</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td>Electrical Wiring</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: 1. BIFSA, Memorandum for the information of the Industrial Tribunal etc., p.68 and Annexure G.
2. Table 47.
We know from our study of Determination No. 13 in Section 8.3.1 that the increasing number of Coloured people in reserved trades may be due to one of two changes (or in fact both). The first is a possibility that Coloured apprentices in reserved trades have been exempted on qualification to work in urban areas. This exemption is granted by the Department of Labour. The second is that many of these Coloureds are contravening job reservation regulations. Whilst the second force is operative, let us rather look at the change in official policy. During the currency of job reservation Determination No. 13 in the Western Cape, not a single application for exemption of a Coloured apprentice wishing to continue employment in a reserved trade after qualifying has been refused by the Department of Labour.\(^{(42)}\) According to the BIFSA submissions, this is because of the easily established fact that no suitable White artisans have been available and that essential production would be severely hampered if the newly-qualified artisan was to be discharged from employment.\(^{(43)}\) Apparently all exemptions have been granted after consultation with the only local White trade union - the Western Province Building and Allied Trades' Union.

These exemptions have clearly encouraged Coloureds to become apprenticed in reserved trades. We would expect the number of Coloureds indentured in reserved trades to have increased as a result of the Department of Labour's policy. This contention is borne out in Table 49 which shows the number of apprenticeship contracts registered in these trades from 1963 to 1973 (shown as the total from 13th May in one year to 12th May in the following year).
Table 49: Apprenticeship Contracts

<table>
<thead>
<tr>
<th>Years</th>
<th>Joinery (Workshop)</th>
<th>Total</th>
<th>2. Coloured</th>
<th>3. Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1964</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1965</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>1966</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>1967</td>
<td>18</td>
<td>1</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>1968</td>
<td>14</td>
<td>1</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>1969</td>
<td>28</td>
<td>1</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>1970</td>
<td>42</td>
<td>1</td>
<td>43</td>
<td>7</td>
</tr>
<tr>
<td>1971</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trades in Cape Town 1963 - 1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship Contracts Registered in Reserved</td>
</tr>
</tbody>
</table>
Table 49 shows that in the numerically important trades of woodmachinery, electrical wiring and joinery, Coloureds have entered so rapidly that they completely dominate Whites at the apprenticeship level today. In the future, the racial composition of the artisan labour force in all these trades should become increasingly Coloured.

Only in shopfitting has the recruitment of White apprentices consistently exceeded that of Coloureds (Table 49). The Cape Town MBA has stated that this is not because of job reservation but because those employers who train shopfitting apprentices have not had the necessary factory facilities to accommodate Coloured workers (this would seem to contradict an earlier assertion that there is shopfloor integration in the Western Cape). However, the statement added that the situation was changing rapidly. The same situation applies to woodmachinists.

The statistics in this subsection suggest the conclusion that Coloureds are rapidly beginning to dominate all the building trades in the Western Cape. This can be seen from both Tables 48 and 49. It also suggests that job reservation Determination No. 13 has only had minor impact on the process of adjustment in the Western Cape.

8.4.3 Apprenticeship Committees.

The second area of concern is the Apprenticeship Act, and the restrictions imposed by it as discussed in Section 8.3.2. More particularly we are interested in looking at the current impact of the barrier imposed by the minimum education requirements, and secondly, discrimination practised by apprenticeship committees.

By all accounts, the rising standard of education of Coloured men in the recent past, combined with the rather low level of education required for entry into building trades, has ensured a sufficient supply of potential Coloured apprentices of the right level of education in the Western Cape. In its submissions to the industrial tribunal investigating Determination No. 28, the Cape Town branch of the Electrical Contractors' Association (which deals with the training of electrical wiremen) stated:
"It is indeed pertinent to point out that the educational level of the Coloured youths offering their services is normally higher than that of White youths available to us due to more congenial careers elsewhere for the better educated White youths." (45)

Thus it appears that Whites with the education needed to become apprenticed have found superior careers in other sectors with those same educational qualifications, alternatives not available to similarly qualified Coloured people.

An important conclusion follows from this. Firstly, apprenticeship committees to some extent follow a policy of racial discrimination in that they attempt to admit White apprentices who do not have the required educational qualifications, whilst they seldom made this allowance for Coloured apprentices in the past (see Section 7.2). This follows logically from the efforts of some employers to keep trades White as long as possible. As the Cape Town branch of the Electrical Contractors' Association has said:

"...due to the shortages of White labour the apprenticeship committee makes every endeavour to accommodate white youths of even below the minimum educational standard ..." (46)

An analysis of the educational standards of the 1,134 apprentices under contract in Durban at the end of 1972 revealed that all but 5 of the 1,015 Coloured and Asian apprentices had attained the minimum educational qualification of Std. 7 required for entry into the industry without exemption, but the applications for exemption from the minimum educational qualification had to be obtained from 54 (or 45 percent) of the 119 White apprentices at the time. (47)

We noted in the previous section that apprenticeship committees could exercise their power in such a way as to refuse apprenticeship contracts to Coloured people. The present director of the Cape Town MBA was quite categorical that racial discrimination had never been practiced by the building apprenticeship committee (of which he is a member). He said that in the eight years that he had been on the committee there had never once been reference to the race of a prospective apprentice. The committee only had two considerations before approve an apprenticeship con-
tract: whether the firm applying had enough artisans to train the apprentice and the educational qualifications of the apprentice.

This answer would seem to imply that Coloureds have been free from restrictions in their entry into the trades in the Western Cape, i.e. that their entry was not conditional upon a shortage of White artisans. This, however, has clearly not been, and is not the case. A close look at Table 49 seems to indicate that Coloured apprentices have only increased their share of all apprentices in a given trade where the number of Whites has declined - in short, their entry would appear to be a carefully controlled process. If the apprenticeship committee does not control the entry of apprentices, then who does?

The research conducted with firms during the course of this study revealed that the important source of discrimination was not the apprenticeship committee but the employer, such that the racial composition of the apprenticeship labour force is determined at the level of the firm and merely confirmed by the committee. The workings of the recruitment system for apprentices in firms consulted in the Cape Peninsula is broadly as follows: employers generally advertise for White apprentices (or advertise for apprentices without specifying race) in trades still controlled by Whites. The employer will not consider Coloured applicants if he receives enough offers from Whites. As labour market conditions change and he finds he cannot get suitable Whites, he may advertise for Coloured apprentices in the particular trade, go round to Coloured schools, or if the advert was non-racial, start accepting the Coloureds that apply. Coloured people will only get into trades when no more Whites are available, with the system of employer screening ensuring informally that no Whites want to become apprenticed.

Reference may be made here to a study undertaken by the Institute of Social Development at the University of the Western Cape. The study investigated offers of jobs through newspaper advertisements, more particularly whether the race of the applicant (White or Coloured) was specified in the advert (the jobs covered were in all occupations and all industries). It was found that about two-thirds of the advertisements did not specify the applicants'
required race, whilst about one-third stated they wanted Whites only. Of those stating no racial bias, the survey in fact found that only 53 percent really had no racial bias whilst 38 percent of the offers were in fact for White applicants and 9 percent wanted Coloured applicants - this means that roughly 35 percent (i.e. 53 percent of 66 percent) of all the advertisements were not race-specific. This last point may imply, that employers want to see how many Whites they can get first before changing their hiring policy. This same argument also applied to those employers who preferred the job to be filled by a White applicant.

It is only after suitable apprentices are chosen that the apprenticeship committee confirms the appointment and enters into a contract. The apprenticeship committee is probably aware at this stage that White apprentices are not available and would therefore not veto an apprenticeship contract in a reserved trade or even one in which 'self-imposed job reservation' agreements exist between employers.

This analysis of hiring practices provides a concrete explanation of the phenomenon referred to above, i.e. despite the absence of specific institutions, such as apprenticeship committees, blocking the advancement of Coloured people into certain occupations, Coloured workers generally only enter an occupation when employers are unable to obtain Whites. The analysis also suggests that self-imposed job reservation agreements in certain trades (see Section 8.3.3) have been altered radically to ease the shortage of White artisans.

The director of the MBA also said that the industry had never had the problem faced by the motor industry in the past, that is, where the apprenticeship committee could only approve an apprenticeship contract if the establishment had a Coloured artisan. In the Western Cape building industry it has been stated that there are no known cases of White artisans in reserved trades refusing to indenture Coloureds. (48a)

8.4.4 Weakening Resistance from White Labour.

The entry of Coloured workers into White-dominated trades in the 1960's raises the larger question of resistance from White
labour. From all available evidence, it appears that this entrance has not been met by any determined resistance from White workers. The secretary of the Western Province Building and Allied Trades' Union (the only all-White building union in Cape Town) said that he was consulted by the Department of Labour on every occasion before an exemption from Determination No. 13 was granted, but that he has never been under pressure from his members to refuse an exemption, neither has he ever done so. What isolated groups of White workers (e.g., joiners at a factory) have demanded in many cases are separate working facilities. This would seem to reflect the status fears of Whites in certain trades of working alongside Coloured artisans. Where the absence of separate factory facilities has held up the employment of Coloured people, employers are gradually stepping in to provide these facilities.

Further strong evidence of decreasing resistance from White building artisans to the entry of Coloureds comes from Durban. While the position in Durban is not strictly within the frame of reference, the writer felt that the changes that have taken place are too rapid to ignore. We recall from Section 8.3.3 that a decade ago (when the first industrial tribunal made its report) it was an area where there was great resistance by Whites to the entry of Coloureds and Indians. This notwithstanding, there has been a remarkable decrease in the proportion of Whites in the artisan labour force. According to the first industrial tribunal report, the percentage of White, Coloured and Asian artisans in the Durban/Pinetown/Inanda industry in 1959 was 75.3 percent, 9.5 percent and 15.2 percent respectively. (49) In December 1972 these percentages were 41.2 percent, 33.4 percent and 25.4 percent respectively (absolute figures in 1972 were 2587,2094 and 1585). (50)

Table 50 shows the racial composition of the artisan labour force by trade in the Durban/Pinetown/Inanda area in 1959. It can be seen that Coloured people and Indians were only working in the wet trades. Since there was no job reservation at the time, this was due to informal restrictions, e.g., self-imposed job reservation.
Table 50: Racial Composition of Artisans in the Durban, Pinetown and Inanda Areas in 1959 (%).

<table>
<thead>
<tr>
<th>Race</th>
<th>Whites</th>
<th>Coloureds</th>
<th>Indians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt worker</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricklayer</td>
<td>61</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Carpenter</td>
<td>87</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Floorlayer</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glazier</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joiner</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood machinist</td>
<td>92</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Stone mason &amp; stone cutter</td>
<td>77</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Painter</td>
<td>46</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>Plasterer</td>
<td>80</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Plumber</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varnisher</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rigger</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal worker</td>
<td>71</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Shopfitter</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tiler</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unclassified</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 51 shows the racial composition of the artisan labour force in various trades in all the industrial council areas of Natal in June 1973 (although the area is not the same as that in Table 50, it is a very close approximation to the composition in the Durban/Pinetown/Inanda area). In some trades, e.g. plumbing, there has been a remarkable increase in the number of Coloured and Indian artisans. It is interesting that Whites dominate at the foreman level, i.e. they always seem to be one step ahead of Coloured and Indian artisans.
Table 51: Racial Composition of Artisans *
In all the Industrial Council Areas in Natal in 1973 (%).

<table>
<thead>
<tr>
<th>Race</th>
<th>Whites</th>
<th>Coloureds</th>
<th>Indians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalting</td>
<td>45.7%</td>
<td>28.6%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Bricklaying</td>
<td>22.4%</td>
<td>35.3%</td>
<td>42.3%</td>
</tr>
<tr>
<td>Glazing</td>
<td>23.2%</td>
<td>28.6%</td>
<td>48.2%</td>
</tr>
<tr>
<td>Joinery</td>
<td>48.0%</td>
<td>33.5%</td>
<td>18.5%</td>
</tr>
<tr>
<td>Painting</td>
<td>16.1%</td>
<td>52.9%</td>
<td>31.0%</td>
</tr>
<tr>
<td>Plastering</td>
<td>20.6%</td>
<td>47.8%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Plumbing</td>
<td>62.6%</td>
<td>27.3%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Shop, Office &amp; Bank fitting</td>
<td>77.6%</td>
<td>16.4%</td>
<td>6.0%</td>
</tr>
<tr>
<td>General foreman</td>
<td>90.1%</td>
<td>6.7%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Foreman</td>
<td>80.0%</td>
<td>14.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>All artisans (incl. those in trades not specified above)</td>
<td>45.6%</td>
<td>33.2%</td>
<td>31.2%</td>
</tr>
</tbody>
</table>

* Based on a survey of 1 026 employers.


Table 52 shows the change between 1959-1972 in the racial composition of artisans in reserved trades in Durban, Pinetown and Inanda.
Further figures show that Coloured and Asian apprentices dominate in the reserved trades - in 1972 there were 359 Coloureds and 288 Indians as opposed to 106 White apprentices in these trades. (51)

The rapid entry of Coloureds and Indians in Durban is interesting not only because of the high proportion of Whites in the industry initially, but also because the White Building Workers' Union, the militant Whites-only union, operates in the area. The presence of the union could have been a potential cause of disruption. It may for instance have refused to allow its members to train Coloured apprentices, yet it has not done so. According to the Industrial Council for the Building Industry, Durban, the White Building Workers' Union included 13.6 percent of all artisans in the area in 1973 (the comparative figure for the other two unions, the AUBTW and ASW, was 70.6 percent). (52) Roughly 40 percent of all unionised White artisans in the area belong to the union. (53)

There is evidence that informal control will still exist by employers and unions, of the racial composition of apprentices. In June 1973 the following resolution was passed by the Durban industrial council:

---

Table 52: Racial Composition of Artisans in Reserved Trades 1959 - 1972.

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th></th>
<th></th>
<th>1972</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>C</td>
<td>A</td>
<td>W</td>
<td>C</td>
</tr>
<tr>
<td>Carpentry</td>
<td>877</td>
<td>30</td>
<td>105</td>
<td>970</td>
<td>574</td>
</tr>
<tr>
<td>Joinery</td>
<td>180</td>
<td>-</td>
<td>-</td>
<td>180</td>
<td>183</td>
</tr>
<tr>
<td>Woodmachining</td>
<td>95</td>
<td>-</td>
<td>8</td>
<td>103</td>
<td>89</td>
</tr>
<tr>
<td>Plumbing</td>
<td>362</td>
<td>50</td>
<td>38</td>
<td>450</td>
<td>251</td>
</tr>
<tr>
<td>Shopfitting</td>
<td>207</td>
<td>-</td>
<td>-</td>
<td>207</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>1742</td>
<td>80</td>
<td>151</td>
<td>1973</td>
<td>947</td>
</tr>
</tbody>
</table>

W - White, C - Coloured, A - Asian, T - Total.

Source: BIFSA, Memorandum for the Information of the Industrial Tribunal, etc., p.57.
"That in the event of the Minister of Labour withdrawing, in respect of the Council's area of jurisdiction, the provisions of Work Reservation Determination No. 13 .... the parties represented on the Council hereby undertake and without prejudice to the rights of all parties concerned with future wage negotiations ... to regulate by means of a gentlemen's agreement the intake of apprentices to be determined from time to time". (54)

8.4.5 Wage Discrimination on the Part of Employers.

A further aspect of possible discrimination relates to the pay of White and Coloured artisans in the building industry in the Western Cape and Durban. What data is available is shown below:

Table 53: Average Earnings (including overtime) of Artisans in 1962. (Rands per week).

<table>
<thead>
<tr>
<th></th>
<th>Carpenter/Joiner</th>
<th>Bricklayer/Plasterer</th>
<th>Plumber</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>C</td>
<td>W</td>
</tr>
<tr>
<td>Durban</td>
<td>43,40</td>
<td>39,41</td>
<td>41,99</td>
</tr>
<tr>
<td>Cape Town</td>
<td>40,55</td>
<td>35,77</td>
<td>37,59</td>
</tr>
<tr>
<td>C as a % of W earnings in Cape Town</td>
<td>100,0</td>
<td>88,2</td>
<td>100,0</td>
</tr>
</tbody>
</table>

W - White, C - Coloured.

Source: Department of Statistics, Report No. 01-22-02.

Table 54: Average Earnings (including overtime) of Artisans in 1972. (Rands per week).

<table>
<thead>
<tr>
<th></th>
<th>Carpenter/Joiner</th>
<th>Plasterer</th>
<th>Plumber</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>C</td>
<td>W</td>
</tr>
<tr>
<td>Durban</td>
<td>84,45</td>
<td>81,94</td>
<td>83,68</td>
</tr>
<tr>
<td>Cape Town</td>
<td>69,14</td>
<td>58,74</td>
<td>65,26</td>
</tr>
<tr>
<td>Col. earnings as a % of White earnings in Cape Town</td>
<td>100,0</td>
<td>84,9</td>
<td>100,0</td>
</tr>
</tbody>
</table>

W - White, C - Coloured.

Source: Department of Statistics, Report No. 01-20-01, pp. 49-70.
Tables 53 and 54 show that differentials did not narrow in the ten years from 1962 to 1972 and may even have widened slightly. Compared to some of the differentials in commerce and industry as shown in Table 55 (below), these are quite slight. In fact they probably overestimate discriminatory pay for equal work because many of the Whites in the trades today are leading hands (i.e. the senior among a group of artisans in a given trade on one site) thus doing slightly more responsible work and earning higher pay.

The phenomenon of pay discrimination is probably attributable in part to sheer prejudice on the part of employers against Coloured artisans. If the labour market is competitive, the explanation for the higher wages of Whites must lie in the fact that the demand for Whites is greater (relative to the supply) than the demand for Coloured people. This must be due to one of two conditions: either the Whites are actually more productive, or employers have been misguided and believe, although incorrectly, that Whites are more productive than Coloured people (thus the marginal revenue product schedule of the Whites will lie to the right of that of Coloured people).

It is doubtful whether there is any discernible difference in the efficiency of the average White and Coloured artisan today. By all accounts, the second stage in the entry of Coloured artisans to the industry has been characterised by the superior educational qualifications of Coloured apprentices. The two groups also serve exactly the same apprenticeship.

The policy implication of this argument is that if the economic status (i.e. the wage) of Coloured labour is to be improved, the basic market conditions (supply and demand) for Coloured labour must be changed, not just the price (i.e. raising Coloured wages to the White level for equal work.)

If differences in supply are not considered, the way to eliminate or narrow the wage differential between the two groups is to increase the demand for Coloured labour relative to White labour. These changes mean, in essence, that in the eyes of employers, Coloured employees must become indistinguishable from Whites, which in the final analysis may be impossible.
If there is a short-run negative employment response to an increase in the wage of Coloured labour, it would appear that since there will be fewer Coloured people employed, there will be less opportunity for employers to "learn" that Coloured labour is as productive as White; there will be fewer opportunities for Coloured people to demonstrate their capabilities, or more important, to receive on-the-job training. Therefore the imposition of equal pay for equal work may not have a desirable outcome.

The dominance of the Coloured people in the artisan ranks of the Western Cape building industry would have come about even if a stringent rate-for-the-job policy had been followed, because the shortage of Whites has compelled the industry to look for other sources of labour. Shortages of White labour must put upward pressure on the wage rate of Coloured labour in the same occupation since demand conditions in this segment of the labour market are changing. It is nonetheless probably true to say that wage discrimination may, in fact, ease the entry of Coloured labour into previously closed areas.

Table 55 shows monthly average cash wages of Whites and Coloureds in various occupations. These figures are drawn from the Cape Town industrial sector wage survey (1975). Many of these occupations are clearly ones where no legal minimum wage exists and thus employers have more freedom to set wages. It would appear that employers discount fairly heavily the employment of Coloured staff in these occupations (which may be because many of these jobs have only recently been opened to Coloured workers).
Table 55: Monthly Average Cash Wages in Cape Town in May 1975.

<table>
<thead>
<tr>
<th>Job category</th>
<th>W</th>
<th>C</th>
<th>C as % of W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bookkeeper</td>
<td>R 344</td>
<td>R 200 F</td>
<td>58,1%</td>
</tr>
<tr>
<td>Costing clerk</td>
<td>345 M</td>
<td>259 M</td>
<td>70,3</td>
</tr>
<tr>
<td></td>
<td>285 F</td>
<td>200 F</td>
<td>70,1</td>
</tr>
<tr>
<td>Cashier</td>
<td>346 M</td>
<td>286 M</td>
<td>82,6</td>
</tr>
<tr>
<td></td>
<td>258 F</td>
<td>175 F</td>
<td>67,8</td>
</tr>
<tr>
<td>Work study officer</td>
<td>560 M</td>
<td>340 M</td>
<td>60,7</td>
</tr>
<tr>
<td>Wage clerks</td>
<td>308 M</td>
<td>251 M</td>
<td>81,4</td>
</tr>
<tr>
<td></td>
<td>273 F</td>
<td>169 F</td>
<td>61,9</td>
</tr>
<tr>
<td>Punch card operator</td>
<td>261 F</td>
<td>172 F</td>
<td>65,9</td>
</tr>
<tr>
<td>Lab. assistant</td>
<td>225 F</td>
<td>143 F</td>
<td>63,5</td>
</tr>
<tr>
<td>Quality controller</td>
<td>582 M</td>
<td>340 M</td>
<td>58,4</td>
</tr>
<tr>
<td>Assistant buyer</td>
<td>452 M</td>
<td>340 M</td>
<td>75,2</td>
</tr>
<tr>
<td>Driver salesman (basic)</td>
<td>270 M</td>
<td>226 M</td>
<td>83,7</td>
</tr>
<tr>
<td>Design &amp; detail draughtsmen</td>
<td>482 M</td>
<td>357 M</td>
<td>74,0</td>
</tr>
<tr>
<td>Assistant general foremen (clothing)</td>
<td>475 M</td>
<td>265 M</td>
<td>55,7</td>
</tr>
<tr>
<td>Copy typist</td>
<td>236 F</td>
<td>160 F</td>
<td>67,7</td>
</tr>
<tr>
<td>Telex operator</td>
<td>235 F</td>
<td>153 F</td>
<td>65,1</td>
</tr>
</tbody>
</table>

W - White, C - Coloured.

Source: W.J. Thomas, The Dynamics of Coloured Labour and Employment, p.15.

8.4.6 Utilisation of Coloured Labour in Supervisory Positions.

One final issue which may be dealt with - in view of the fact that the recent take-over by Coloured artisans of the reserved trades is almost complete - is the further scope for advancement of Coloured people in the Western Cape building industry. Coloured artisans have yet to become predominant in the supervisory jobs of foreman, general foreman and leading hand (Table 56).

<table>
<thead>
<tr>
<th></th>
<th>25/6/1971</th>
<th></th>
<th></th>
<th></th>
<th>29/6/1973</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>C</td>
<td>A</td>
<td>T</td>
<td>W</td>
<td>C</td>
<td>A</td>
<td>T</td>
</tr>
<tr>
<td>Leading hand</td>
<td>12</td>
<td>118</td>
<td>5</td>
<td>135</td>
<td>12</td>
<td>136</td>
<td>6</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>8.9%</td>
<td>87.4%</td>
<td>3.7%</td>
<td>100%</td>
<td>7.8%</td>
<td>88.3%</td>
<td>3.9%</td>
<td>100%</td>
</tr>
<tr>
<td>Foreman</td>
<td>109</td>
<td>129</td>
<td>7</td>
<td>245</td>
<td>119</td>
<td>157</td>
<td>9</td>
<td>285</td>
</tr>
<tr>
<td></td>
<td>44.5%</td>
<td>52.7%</td>
<td>2.8%</td>
<td>100%</td>
<td>41.7%</td>
<td>55.1%</td>
<td>3.2%</td>
<td>100%</td>
</tr>
<tr>
<td>General foreman</td>
<td>136</td>
<td>65</td>
<td>-</td>
<td>201</td>
<td>150</td>
<td>70</td>
<td>-</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>67.7%</td>
<td>32.3%</td>
<td>-</td>
<td>100%</td>
<td>68.1%</td>
<td>31.9%</td>
<td>-</td>
<td>100%</td>
</tr>
</tbody>
</table>

* Based on a sample of 812 employers.

W - White, C - Coloured, A - Asian.

Source: Report and Recommendation by the Industrial Tribunal 31/10/1974, p.44.

Table 56 indicates two things clearly. Firstly, there is still much scope for Coloured promotion into the categories of foreman and general foreman. Since the absolute figures in the table are only those of a sample survey, they underestimate the total number of jobs at this level. The three categories in the table generally constitute about 10 percent of all blue-collar jobs from artisans upwards. Hence there were about 1 400 such jobs in the Cape Peninsula in 1972.

Secondly, the table gives further evidence of the phenomenon discussed above, i.e. even in the absence of specific job controls, Coloured people generally follow Whites into occupations, this generally only when employers begin to experience difficulties in the recruitment of Whites. It should be noted that Coloured people have all but taken over the lower-level supervisory function of leading hand whereas they are less significant at the level of foreman and general foreman.

What is also significant in this regard is the fact that employers have responded to this movement into supervisory
posts by providing training courses for potential Coloured recruits to these jobs. There are two such courses in existence, both of which have been provided for Whites only for some time and only recently opened to Coloured people. They have both been sponsored by the National Development Fund for the Building Industry.

The first is a training course leading to exams for the National Certificate for General Foremen in the Building Industry, a one year part-time (two hours per week) course. The three subjects taught are: Site Organisation and Control, Site Administration and Personnel Supervision and Welfare. Presumably it is only open to qualified artisans. (56)

The course has been run by the Cape College for Advanced Technical Education for some years but in recent times the college has seldom received more than one White applicant annually. Due to the demand from Coloured people for these facilities, BIFSA arranged for the course to be started in 1973 at the Peninsula College for Advanced Technical Education in Bellville South. Apparently the first enrolment was 45 and according to the director of the Cape Town MBA it has never dropped below 20 or 30.

The second and more advanced course is that leading to the National Diploma for Construction Supervisors. Introduced at the beginning of 1965, it is a three year sandwich course with five fourteen-week periods at a technical college (on the block release system). The balance of the period is spent doing practical training with an employer. It would appear that the course concentrates on the advanced technical aspects of building and prepares candidates for site management. The entrance qualification is either Senior Certificate or the NTC III. (57) The course has been running at the Cape College for Advanced Technical Education for roughly 10 years, and there have apparently never been problems with the recruitment of White candidates. However, about three years ago the Cape Town MBA received enquiries from Coloured people wishing to do the course – a large construction company in Cape Town made a similar request on behalf of six of its Coloured employees at about the same time. They requested that the MBA petition the Cape College for Advanced Technical Education to admit these Coloured
applicants, but permission was refused. The MBA has, accordingly, recently arranged with the Peninsula College for Advanced Technical Education to run a parallel course beginning in 1977.

Finally, brief mention should be made of the role of the Coloured people in the semiskilled grades in the industry. Coloured workers today have entirely moved out of the unskilled and semiskilled driver categories (crane drivers, dumper drivers, etc.) Apparently soon after the War, higher-level tasks in this category (e.g. crane drivers) were almost entirely dominated by Coloured men, but today all such work is done by African contract labour. However in 1967 the parties on the industrial council negotiated the introduction of operative (semiskilled) work to relieve artisans of certain repetitive work they were doing. Semiskilled work was created in the following trades: bricklaying/plastering, joinery/woodmachining/shop, office and bank fitting, plumbing, painting and glazing, and monumental and stonemasonry. (58) Govt. Gazette Notice No. R1297 in July 1968 provided that exemption would be granted for four years to the extent that Coloured persons registered with the industrial council might perform any work defined as 'operative' except work in connection with shop, office and bank fitting. (59) Today the operative grades are manned exclusively by Coloured men. The creation of this work has meant a place in the industry for Coloured youths with Std. 4 or Std. 5 education, who are unable to be apprenticed. There were approximately 800 such operatives in the industry in 1976.

8.5 Conclusions

Several important conclusions can be drawn from Section 8. One is that the racial composition of the building artisan labour force has changed markedly in favour of Coloureds and Asians in the past few years. This will continue if the proportion of Whites in the apprentice labour force continues to decline. A study of the Western Cape and Natal highlights the changes that are occurring in this regard.

Furthermore the changes in both areas have come about whilst job reservation Determination No. 13 was still in force. The evidence presented suggests that these statutory barriers have not
in any way held up the progress of Coloured artisans. This is largely because a shortage of White artisans has forced the Department of Labour to be flexible in its approach to exemptions.

The second conclusion that became evident is that the upward mobility of Coloureds into particular job stratas in the Western Cape only becomes rapid once employers experience difficulty in recruiting Whites for these posts. At the apprenticeship level, employers generally only begin recruiting Coloureds when they experience difficulty in finding Whites. At the artisan level, the Department of Labour has granted exemptions to Coloured artisans to practice in reserved trades when the unions have reported no White unemployment in these trades. A similar pattern exists in respect of foremen and general foremen.

This conclusion is supported by the findings of the Theron Commission. They argue that employers generally give preference, when hiring, to White workers followed by Coloured and Asian workers and finally African workers. It is typical of this type of hiring system that the wages of the race for which demand is greater than supply (in any job category) will rise to the point where it becomes economically necessary to substitute cheaper labour. In Section 8.4.5 this form of labour preference at the artisan level was seen to be a cause of differential earnings for White and Coloured labour.

A final conclusion is that the entry of Coloured workers to closed trades has generally been delayed by the practice of admitting White workers under exemption from the educational qualification of the Apprenticeship Act. This process was seen to operate in the Witwatersrand building industry as well.
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FOOTNOTES: SECTION 8

(1) W.H. Thomas, The Dynamics of Coloured Labour and Employment, p.5.

(2) Ibid., p.6.

(3) Ibid., p.6.

(4) See S.P. Cilliers, Appeal to Reason.

(5) See Department of Labour, Manpower Survey No. 10.


(6a) BIFSA, Memorandum for the information of the Industrial Tribunal etc., p.54.

(7) Published in the Govt. Gazette 9/11/1962.

(8) Report by the Industrial Tribunal etc. 22/1/1962, p.40.


(12) Ibid., p.59.

(13) Ibid., p.56.

(14) Ibid., p.57.

(15) G. Groenewald and H. van der Merwe, op.cit., p.149.


(17) Ibid., para. 270.

(18) Ibid., para. 272.

(19) Ibid., para. 272.

(20) Ibid., para. 274.

(21) Verslag van die Kommissie van Onderzoek na Aangeleenthede rakende die Kleurlingbevolkingsgroep RP 38/1976.
(22) Ibid., para. 5.70.
(23) G. Groenewald and H. van der Merwe, op.cit., p.150.
(24) BIFSA, op.cit., Annexure G.
(26a) Ibid., p.38. (26) BIFSA, op.cit., p.68.
(27) Ibid., p.38.
(29) Ibid., para. 338.
(30) Report by the Industrial Tribunal etc. 22/1/1962, p.38.
(31) Ibid., p.17.
(32) Ibid., p.12.
(33) Ibid., p.12.
(34) Ibid., p.15.
(35) Ibid., p.38.
(36) Ibid., p.39.
(38) Ibid., para. 358.
(39) Report by the Industrial Tribunal etc. 22/1/1962, p.6.
(40) Ibid., p.6.
(41) Ibid., p.7.
(42) BIFSA, op.cit., p.49.
(43) Ibid., p.49.
(44) Ibid., p.50.
(45) Ibid., p.68.
(46) Ibid., p.68.
(47) Ibid., p.58.
(48a) BIFSA, op.cit., p.6.
(49) Report by the Industrial Tribunal etc. 22/1"1962, p.14.
(50) BIFSA, op.cit., p.57.
(51) Ibid., p.58.
(52) Ibid., Annexure I.
(53) Ibid., Annexure I.
(54) Ibid., Annexure I.
(55) This analysis is drawn from R.B. McKenzie and G. Tullock, The New World of Economics, ch.7.
(57) Ibid., p.18.
(58) M. Horrell, South Africa's Workers, p.113.
(59) Ibid., p.113.
(60) Verslag van die Kommissie van Ondersoek na Aangeleenthede rakende die Kleurlingbevolkingsgroep RP 38/1976, para. 5.115.
(61) Ibid., para. 5.115.
SECTION NINE

OVERALL TRENDS

AND CONCLUSION
What remains is to restate and inter-relate the observations made concerning the process of change in the labour structure of the Witwatersrand and Western Cape building industries and to emerge with a relevant and practical set of explanatory tools.

The emphasis in this study has been on the process of adjustment to labour market stresses in one industry only. This emphasis seems justified by the conclusions that have been reached and the insights gained. Moreover, the time period chosen for study, i.e. from 1960 onwards, has been one in which some of the most important changes in the industry's labour structure have occurred.

In section 9.1 the different patterns of occupational advancement experienced by Coloured and African workers - as revealed by the empirical findings - have been summarised and contrasted. In section 9.2 certain policy prescriptions - concerning official bodies, employers and employees - are mooted, in the light of the process of adjustment found to exist. In view of similar adjustments currently taking place in other industries, this section seems well justified. From this, effective practical policy might emerge. In concluding section 9, a few shortcomings of this study are mentioned, with an indication of the scope for further research.

9.1 Patterns of Adjustment

In the study it was indicated that the employment opportunities for African workers (at the semiskilled level) and Coloured workers (at the artisan level) in the Witwatersrand building industry - and by implication in the whole of the Transvaal and Orange Free State - have increased sharply since 1975. Although the pace of African advancement has been determined by White workers responding to changing market forces, Africans will now benefit from the de jure recognition of their employment on more skilled work. The empiricist may, however, question whether the performance of skilled work for so long at unregulated rates of pay may tempt employers to ignore these improvements as far as remuneration is concerned.

This lag in adjustment was shown to have other undes-
irable consequences. In response to attempts to comply with official
colour bars such as job reservation Determination No. 6, the wages
of White artisans reflected conditions in the White labour market
in the economy. It also involved BIFSA in a costly and time-consuming
recruitment programme. This appeared to be a necessary strategy be-
fore meaningful bargaining with the trade unions could begin. It
can thus be concluded that the registered trade unions did respond
to market forces but with a lag.

One important explanation of the wage increases that
occurred during this period was the strong employer preference for
White labour. This was also shown to be a barrier to the entry of
Coloured artisans. It appears that employers only lower hiring
standards and recruit workers from other groups when the demand
for artisans exceeds the supply of White artisans. Any other strat­
egy would clearly be counter-productive in terms of getting the
registered unions to the negotiating table.

It is tempting in this regard to argue that the speed
with which capital-intensive industrialised building systems have
been introduced has been because of rigidities at the industrial
council level. This factor should be borne in mind since the tenor
of employment policy at present should be one of encouraging labour­
intensive methods of production as one means of coping with the
recession in the building industry.

Thus the de facto pattern of adjustment in the labour
market would appear to come closer to Reder's theory of labour
market adjustment than the neoclassical theory, the latter em­
phasising profit-maximisation and freedom to substitute factors of
production. This freedom to substitute non-artisan for artisan
labour was not observed in the study, e.g. in the case of the re­
dundancy agreements applicable to White workers.

The major characteristics of the de jure labour market
adjustment process in the Witwatersrand building industry from 1966
onwards may be briefly restated. Firstly, it appears that the early
fragmentation agreements had little impact on easing the labour
market shortages at the time. Nonetheless, the acceptance of these
labour rationalisation schemes did lead to large wage and fringe
benefit increases for the registered trade unions. The prevailing practice in the industry at the time - that of extensive wage evasion in respect of Africans doing skilled work - was cited as one reason for the reluctance of employers to adhere to rates of pay for newly-reclassified skilled work. This is an important argument against the perpetuation of official job colour bars that fail to stand the test of time.

Secondly, it appears that the Department of Labour has been more lenient in its attitude towards the adjustment process. A comparison of the recommendations of the first and second industrial tribunals investigating the Witwatersrand building industry reveals that the tribunal investigating Determination No. 28 was less cautious in its approach than the previous one was. It appears that the promulgation of Determination No. 28 was the first time that the Department of Labour had challenged the wishes of a White trade union so directly. Furthermore, the ease with which exemptions were granted from Determination No. 6 - both in respect of the decision in 1971 regarding Coloureds and Black crane and lorry drivers - is also important.

The evidence presented in the study strongly suggests the following conclusion, i.e. that the function of legislation and policy pronouncements in conferring a virtual right of veto on registered unions has had undesirable effects on the building industry. The registered unions thus have an extra degree of freedom at reclassification agreements which has been used to widen the minimum wage gap with non-artisan grades. This is in contrast to the constancy of the gap from 1962 - 1972. These minimum wage increases also reflect attempts to protect union members' earnings against the entry of Black workers. It was precisely this fear of wage deflation which led to the BBV opposing the entry of Coloured artisans into the trades, in favour of an adjustable ratio system.

The impact of the shifting colour bar on income differentials in the industry was difficult to gauge because of inadequate statistics. The trends that did emerge suggest that the narrowing of the wage gap has been frustrated by the White artisan wage inflation in the period 1962 - 1972, for example, in the case of
drivers' and hoist operators' average earnings vis-a-vis those of artisans, as discussed in section 7.

Two comments are in order regarding recent data (referred to in section 7) showing that Black earnings in construction has been rising faster than White earnings since mid-1972. Firstly, the study has suggested the power of the registered unions in pushing up wages beyond that suggested by marginal principles (i.e. the intersection of the supply and MRP curves) without causing significant unemployment. In the case of Black workers, this constraint was seen to be much more effective because of the threat of unemployment and the productivity improvement following from rudimentary training. Furthermore, if this wage-employment trade-off is significant, then it would not be practical to suggest that Black semiskilled workers be paid minimum (inflated) rates approaching those of White artisans.

Tentative evidence suggests that White artisans in the Transvaal will henceforth more into higher productivity-higher earnings jobs where a new job reservation threshold vis-a-vis Coloureds and Africans will be applied. It appears that this will be an enduring feature of any future adjustments made to the colour bar in the building industry.

With regard to non-artisan wages in the industry, it has been shown that there has been a rapid improvement since the late 1960's. Furthermore, substantial wage improvements have occurred as a result of skill acquisition by African workers. These improvements have been manifested both in high levels of wage drift and the introduction of a comprehensive fringe benefit pattern. The rules regarding eligibility for, e.g. pension fund payments, reflect the desire of the industry to reduce labour turnover and training costs.

An important factor in non-artisan productivity improvement in the building industry was shown to be the institution of rudimentary training schemes. The largest firms in the industry generally have done far more privately in this regard than the medium-sized and smaller contractor.
The adjustment to White artisan labour shortages on the Witwatersrand has been through job dilution, whilst this study has shown that in the building industry in the Western Cape and Natal these shortages are being manifested in the very rapid entry of Coloured workers at the artisan and foreman level. This is occurring simultaneously with the broad-based entry in the Western Cape of Coloured artisans into other hitherto-closed trades.

It would appear that Coloured artisans will dominate the artisan ranks entirely in the two coastal provinces before a process of job fragmentation reduces employment opportunities at the artisan level as is happening in the Transvaal. The dampening effect on artisan wages as a result of the entry of Coloured artisans in the Western Cape, will probably delay the need for an introduction of semiskilled African labour, for example through industrialised building systems. The predictions made by this study about the employment opportunities of Coloured artisans in the Witwatersrand building industry were particularly equivocal since the dynamics of adjustment in this area will bring about a relative decline in the number of artisans required, whilst Whites will have preference at the supervisory level.

A significant point in the Western Cape study was that adjustments in the industry's labour pattern were in fact more responsive and adaptable to labour market stresses, depending as they appeared to on the individual employer's judgement about labour market conditions, e.g. the case of Coloured apprentices in a particular trade. This means that job reservation was administered flexibly, the criteria for exemption simply being whether there was White unemployment or not, or in the context of apprenticeship recruitment, whether a White apprentice could be obtained.

The study highlighted the different attitudes of White workers in the Western Cape - as opposed to those in the Transvaal - to the entry of Black workers. In the former area (including Durban), White artisans seemingly played a neutral role in Black job advancement in recent years.

Despite the absence of far-reaching statutory barriers
to the entry of Coloured building artisans in the Western Cape, a significant point in the Western Cape study was the reinforcement of an observation made in the Transvaal, i.e. that of strong employer preference for White labour. This was seen to be an important informal barrier to the fuller utilisation of Coloured labour in the industry. The study also linked this phenomenon to the pay discrimination shown to exist between White and Coloured artisans.

Other informal barriers - which according to the Theron Commission are the most important ones facing Coloured labour today, inter alia, minimum wage requirements and apprenticeship committees, were also pointed to. The different pattern of entry of Coloured - as opposed to African - labour suggests that the tools of analysis used in the latter case are inapplicable - or at least out of context with - the character of the labour force under study.

9.2 Scope for Policy Intervention

There is scope for policy intervention at three levels: (1) the official level, i.e. government policy, (2) at industrial council level and the Department of Labour, (3) private employers. Although several extremely important suggestions can be made as to appropriate changes at the official level - the redrafting of certain Acts, e.g. the Industrial Conciliation Act, and the reversal of certain tenets of policy e.g. in respect of the training of Africans as apprentices - this area will not be pursued. This is despite the fact that the study has shown these policies to be open to serious criticisms.

Attention was drawn in section 9.1 to the lags in de jure adjustment to labour market stresses in the Witwatersrand building industry. Even if official policy is to remain that job reclassification takes place with management's consent from the registered trade unions, it could still be argued that the lags between de facto and de jure adjustment cannot be justified, i.e. it is suggested here that the administrative reaction to market forces be speeded up. As has been shown, this lag has had important consequences for the wage gap.
In this regard, it could be suggested that an agency such as the industrial council institute a job evaluation study including all grades in the industry. This could have an important educative effect on the registered unions vis-a-vis the alignment of their minimum wages with those in the non-artisan grades. In time, the unions may—as suggested by Lloyd Reynolds{1}—become more apologetic about defending out-of-line rates.

There is scope for industrial council action on other issues as well, e.g., changing non-artisan overtime such that overtime payments begin after 40 and not 44 'ordinary' hours, and the increase of fringe benefit payments to certain minimum levels.

This study has suggested that there is scope for more creative management of the entire process of adjustment, especially that with regard to African workers. For instance, the information from the Western Cape showed employers' decisions to be quite reliable in their hiring practices as regards the appropriate pace of change in the labour market. This could be the basis upon which trained Bantu Building Workers could eventually be admitted to the skilled trades in the Witwatersrand building industry. One is further tempted to ask why an operative grade 1:artisan ratio system was not instituted in 1966 when the first reclassification agreement was negotiated in the industry.

9.3 Scope for Further Research

The benefits of in-depth study of one industry have been referred to in section 1. The conclusions reached in this study would seem to justify this contention. A suggestion is made here that similar studies of other industries be undertaken; however, one series problem is that industrial councils do not collect the type of information which is extremely important to the empiricist studying occupation mobility.

There remains much scope for research at the level of the firm. Topics touched on in this study but requiring far more detailed research include: (1) the causes of wage drift in Black grades, (2) what causes racial wage differentials in similar jobs to be perpetuated and not eradicated by the market, (3) the pay-productivity link. Again at the level of the firm, there is scope for research on employer decision-making regarding decisions to
change hiring standards and admit excluded workers.

At the industry level, there is scope for investigation of the criteria used for wage-setting by industrial councils. Given the crucial role that this study has shown the registered unions to have played in African job advancement, there is clearly scope for research into union attitudes towards African job advancement, and the various means by which these attitudes may be made more accommodating, i.e. creative policy intervention.

FOOTNOTES: SECTION 9

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