

**THE RISE IN AFRICAN WAGES
IN SOUTH AFRICA:
1975 - 1985**

by
J. F. HOFMEYR

ERU



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PREFACE

This paper arises from a project which was generously funded by the Anglo American Chairman's Fund Educational Trust, and would not have been possible without the willingness of Professor P.Nel of the Bureau of Market Research at the University of South Africa to make available the raw data from their income and expenditure surveys. I am also grateful to John Knight, Mike McGrath, Gavin Maasdorp, Peter Moll and George Trotter for comments on preliminary drafts. The responsibility for any errors remains mine, however.

SUMMARY

It is well known that South Africa has a highly unequal distribution of income. Estimates going back to 1917 reveal no discernible trend in the distribution between Whites and the other races until 1970, when the White share was roughly 70%, depending on which measure of income is used. After 1970 the distribution began to change in favour of Africans, and by 1980 the White share had dropped to approximately 60%: an astonishing result in view of the previous long-standing constancy. The principal reason was a redistribution of wage income from Whites to Africans: the African share of the modern sector wage bill excluding agriculture and domestic service rose from roughly 20 to nearly 30% from 1970 to 1984, and African wages nearly doubled in real terms while those of Whites rose by only 9%. The implications for South African society are vast, and it is the purpose of this paper to examine certain aspects of the rise in African wage levels. Two types of process contribute to the change in average wages: changes in their structure, i.e. the actual wage levels paid to specific occupations, and movement of the working population through that structure. Using regression analysis on a set of data containing personal and job characteristics of African workers in the main urban areas, it has been possible to distinguish between these two effects for the period 1975-1985.

The analysis shows that in most cases male wage levels fell over the decade, and occupational differentials increased. This is not surprising given the poor performance of the economy on average. At the same time, sectoral differentials in pay, which were substantial in 1975, had largely disappeared by 1985. Interestingly, mining had emerged as one of the best-paying sectors after allowing for differences in labour force characteristics, etc. The closing of sectoral differentials suggests that there was a breakdown of segmentation of the labour market over the decade. Women were paid considerably worse than men in 1975, but this gap had narrowed substantially by 1985. As a result, female pay generally kept up with or beat inflation. It is not clear to what extent shorter average hours of work than for men or increases in hours contributed to these effects. There were substantial regional differentials in pay in all years, but the pattern changed over time. There appears to have been a unification of the labour market in the industrial heartland, with outlying areas being increasingly left behind. Experience was a significant explanatory factor, and the returns to it increased over the decade. Education was also highly significant, but there was little change over time.

The major factors which contributed to the increase in average wages were the lessening of the male-female differential, particularly at the unskilled level, the increasing occupational differentials for males, the closing or narrowing of

sectoral wage gaps, increasing returns to experience, and upward movement of the population through the occupational and educational levels. The major negative influences were the fall in real wage levels for unskilled males, not offset by increasing occupational differentiation, and the increasing proportion of women in the labour force. If we take occupation and education together to represent the actual skill/responsibility level of an occupation, we see that movements through that structure contributed an increase of 1,4 per cent per annum, whereas changes in the levels of wages contributed very little overall.

1. INTRODUCTION

The distribution of income between groups and individuals in society, with its implications for social justice etc., is a subject which has long fascinated economists. South Africa has been no exception. The importance of race has meant that most studies have concentrated on the division between the racial groups, and there are estimates going back to 1917. McGrath (1977, p.8) summarises the results from these studies, and presents calculations of his own based on census data obtained since the Second World War, up to 1970. Although the definitions of income used vary between the studies, and the absolute levels of the income shares vary, there is no consistent trend which can be detected over the entire period from 1917, at least as far as the White share is concerned. McGrath estimates this as 71-72 per cent in 1970.

Since 1970, however, a dramatic change has taken place. Devereux (1983, p.36) quotes figures and produces his own estimates to show that the White share fell consistently over the next decade to between 60 and 62 per cent, with the African group being the main beneficiary, its share rising from roughly 20 per cent to nearly 30 per cent. In view of the previous long-enduring constancy of shares, this is an astonishing result.

Since there is no reason to suppose that the distribution of the ownership of wealth changed significantly over this period (the vast majority being in White hands), the change must have been due to a redistribution of wage income. Between 1970 and 1984 the African share of the modern sector wage bill (excluding agriculture and domestic service) rose from 20 to nearly 30 per cent (SALS, 1987, Table 4.1.1.1). The main reason for this was the rapid rise in African relative to White wages: a near doubling in real terms compared to only 9 per cent.

The implications of this change are potentially vast. They include the questions of social justice, the redistribution of buying power with all that this entails, unemployment, productivity and inflation.

An analysis of this phenomenon is therefore potentially of great value. Such an analysis would attempt to discover the causes of the changes which have occurred, their prospects for continuing, and their implications for the economy in particular and society in general.

However, before one can begin examining the various processes at work, one needs to examine the proximate causes for the rise in average wages. Such trends are a composite of an array of different effects: movements in wage rates paid to

specific jobs coupled with changes in the spread of the working population across those jobs. In addition, the nature and distribution of jobs may change. Further, in an imperfectly competitive economy, wages for specific occupations will in general vary across regions and sectors (to name but two of the possible guises segmentation of the labour market may take), and the extent of this may vary over time.

Broadly speaking, the various effects can be classified into two general types: changes in the structure of wages, and changes in the distribution of the population across that structure.

Most of the wage data published do not have sufficient detail regarding the characteristics of wage earners to enable one to distinguish these effects. There are a number of private sector surveys which go some way to filling the gap. Several of these take the form of gathering data from subscribing firms about the wages paid to occupations which are graded according to level of responsibility and skill. Unfortunately there is very little information available about the characteristics of the individuals concerned. One such set of data has recently been analysed by Knight and McGrath (1987), with some very interesting results. A further problem is that there was very little interest in the wage rates paid to Africans before about 1975, and therefore very little of the relevant detail was collected or published before this date.

It has recently been possible to gain access to another private sector source of data: the five-yearly surveys of income and expenditure of the African urban population conducted by the Bureau of Market Research (BMR) at the University of South Africa. Raw income data gathered in the 1975, 1980 and 1985 surveys are available on magnetic tape. Unfortunately the raw data from earlier surveys have been destroyed. This is a great pity, since some of the most spectacular wage movements took place in the first half of the 1970s. Nonetheless, there has been a considerable increase in African wages since 1975, and though less dramatic, it has been more sustained. It is unlikely that the spectacular movements of the earlier period will be repeated, but it seems probable that the subsequent changes may well continue, at least if economic growth resumes a more normal path in the future (the period since the mid-1970s has witnessed violent fluctuations in the growth rate unprecedented in the years since the Second World War). The later period, therefore, is perhaps more important for examining the changes at work in the economy.

It is the purpose of this study to disentangle the effects on average wages of changes in the wage structure and movements through that structure using the BMR data.

The fact that the BMR data were gathered with a different purpose in mind, i.e., studying the expenditure patterns of households, does introduce some problems. Firstly, sampling is on a household rather than an individual basis, meaning that the sample of workers cannot be regarded as representative in the sense of a properly drawn random sample of workers. Secondly, the data on individual characteristics are required for a different purpose, and may not be as rigorously defined as would be desirable for a study of this sort. For example, there are only six occupational classifications, and the educational groupings are rather broad. However, the sample size is large: up to 500 households each in the main urban areas, leading to samples of 5 000 - 6 000 workers in 1975 and 1985, and 3 800 in 1980. This means that even very broadly-defined categories are capable of yielding good results in most cases.

2. THE SAMPLE

The data are taken from income and expenditure surveys conducted by the BMR in 1975, 1980 and 1985. The surveys covered the main urban areas, the precise areas covered varying somewhat from survey to survey, presumably reflecting the changing priorities of the BMR's subscribers, as well as the changing boundaries of the republic.¹ The 1980 survey was much smaller than the other two.

The basic unit of sampling was the household. Households were divided into multiple and single types. A single household is defined to be one consisting of a single individual residing on his own at his normal place of residence, whereas a multiple household is one which consists of more than one individual. A migrant worker living in a hostel or compound would be regarded as a single household, regardless of the fact that he might have another residence and a family in some other place.

Separate random samples were drawn independently in each urban area for each of the two types of household. For the purposes of the analysis, the separate samples were simply combined. The result can in no way be said to be a random sample of the country as a whole, since the balance between the areas and the two types of household bears no relation to reality. Nonetheless, this should not affect a structural analysis of the data, provided that proper account is taken of the area and household-type effects.

The focus of this study is on the rewards to employment, and therefore only employed members of the sample of normal working age were selected for further study. This leads to a further peculiarity in the sample: more than one member may be selected from each multiple household, leading to a degree of clustering. However, it is plausible to assume that employers would in general not take the employee's household background into account when deciding on his position or his wage level. Thus this form of clustering is unlikely to introduce any bias. The self-employed were excluded from the study for a variety of reasons.

3. GENERAL CHARACTERISTICS

Table A1 shows the distribution of the sample populations across the categories available for analysis.

Table 3.1 shows the average annual wage for the entire sample population, as well as its breakdown into its various components. Overtime was not recorded in 1975, but it can be expected to be a small proportion, judging from the other two years. The basic cash component made up over 90 per cent of total earnings. The next largest item, payments-in-kind, made up less than 5 per cent.

	1975		1980		1985	
	Rand	%	Rand	%	Rand	%
Basic cash	1145,78	94,88	2045,94	90,71	4168,26	90,77
Payments in kind	41,72	3,45	96,07	4,26	196,86	4,29
Bonus payments	18,04	1,49	51,71	2,29	128,07	2,79
Overtime			51,92	2,30	61,12	1,33
Cash allowances	2,03	0,17	9,74	0,43	38,03	0,83
<i>Total</i>	1207,57	100,00	2255,38	100,00	4592,34	100,00

Table 3.2 shows a comparison of average wages from the BMR surveys with national averages. Two figures are given for the BMR surveys: basic cash wages, and total wages. The national averages are taken from the sample surveys of employers conducted by the Central Statistical Services. They cover total cash remuneration, including bonuses, overtime, etc., as well as employers' contributions to holiday, pension, provident and medical funds. They cover all sectors of the modern economy except agriculture and domestic service.

Year	B M R		National
	Cash	Total	
1975	1146	1190	1092
1980	2046	2152	2280
1985	4168	4403	4380

Note: National figures were not available for 1985; the figure shown is for 1984.
Source of national data: SA Labour Statistics (1987), Table 4.1.1.1.

The various figures are not strictly comparable since the coverage is different. Nonetheless, the BMR figures cover the major part of the remuneration package

in the main urban areas where most employers are located, and therefore the differences are not as great as at first sight. Despite the differences, the general agreement is striking.

When looking at changes through time, unfortunately the BMR figures for the different years are also not strictly comparable, since the areas covered in each survey differ. Using the areas common to the 1975 and 1985 surveys (as noted above, the 1980 survey was much smaller), the average rates of change in nominal terms were 13,2 and 13,4 per cent per annum for cash and total wages respectively. The rate for the national average for the period 1975-84² was 15,4 per cent per annum.

It is not possible to establish the precise reasons for the difference given the lack of detail in the national figures, but several can be suggested. The national figures could be expected to decline somewhat if the 1985 results were included, since real wages declined in most sectors after 1984. Nonetheless, the overall figure for 1975-85 would in all likelihood still be substantially higher than the BMR results.

As noted earlier, the national figures include employers' contributions to holiday, pension, etc. If these increased faster than basic wages, this could account for the difference.

The inclusion of domestic service in the surveys reported here may account for some of the difference, but, as will shortly be seen, wages in community services as a whole rose faster than manufacturing. Thus, this seems unlikely to account adequately for the difference.

A further reason lies in the different sampling methods. The national figures are based on a sample survey of employers, and it is likely that they cover large employers more effectively than small ones, which could be expected to put an upward bias on the results.

In addition, as has been pointed out earlier, the average figures include two types of effect: changes in the structures of wages and in the distribution of the labour force across that structure. Even if changes in the structure of wages were the same in both samples, the fact that they reflect different movements through that structure would lead to different rates of increase. Consider for example the regional make-up of the BMR sample. This does not reflect the actual distribution of the working population. Thus, if there had been a larger net movement to high wage areas, compared to the apparent movement corresponding to changes in the BMR sample distribution, the result would be a much higher average.

4. METHODOLOGY

The independent variables available for analysis are: occupation, sex, sector, area, education, accommodation type, marital and household status, age and job duration. Since most of the variables are neither cardinal nor ordinal, they must be represented by a set of dummy variables. Only age and job duration are in fact continuous. Age was not used as such, but was transformed into total working life by subtracting an estimate of average school-leaving age (or university or college, where appropriate). This estimate was appropriate to Africans in South Africa¹.

The resultant set of variables is rather large (up to 40), and a factor analysis was performed to see if they could be reduced. However, the results were disappointing, as there was no clear grouping round a relatively small number of factors. This method was therefore abandoned.

Regression analysis was performed in order to explain the distribution of wages. As has been seen, various income variables are available. Two aggregates were used in this analysis: basic cash wages only, and total basic wages. The first included only basic wages, i.e., bonus payments, overtime and other allowances were excluded. The second included wage allowances for travel, housing, etc., and payments-in-kind. The rationale for excluding bonus and overtime payments is that these are related to the individual occupying a job and the amount of effort he puts into it, rather than to the job itself. It may, of course, be argued that overtime and bonuses are so much a part of the regular wage in some jobs that the labour market has internalised these. However, this possibility has been ignored. In any event, bonus and overtime payments constituted only a small part of the wage package on average (see Table 3.1).

A drawback to the wage data is that these are given as weekly or daily rates, and there is no indication of hours worked.

The analysis of the data was split into two stages. In the first, data for each of the three years were examined separately to determine the relative importance of the various effects, and, in the second, the years were combined with the use of a dummy variable representing time to examine the changes which had occurred.

4.1 The Basic Model

An initial regression was performed for each year incorporating the whole sample and all the variables. The sample was restricted to individuals of working age (16-65 years). In addition, those cases with data which were incomplete or in

unknown or residual categories were excluded. In subsequent regressions, the samples were restricted to the areas common to the 1975 and 1985 surveys, and to those common to all three.

A semilogarithmic model formed the basis for the regression analysis. This model is of the standard earnings function form used in many other studies (e.g., Knight and McGrath, 1987). This model postulates that the wage is determined by a set of characteristics of both the individual and the job he occupies. The function had the form:

$$\ln W = a + bF + \sum_i (c_i + d_i F) X_i + (e + fF)L + (g + hF)L^2 + (q + sF)D + (v + wF)D^2 + U$$

where W = wage variable (rands/year);

F = dummy variable representing the characteristic female sex;

X_i = dummy variable representing characteristic i ;

L = working life (years);

D = duration of current job (years);

U = error term [assumed to be $N(0, \sigma^2)$];

and $a, b \dots$ are coefficients to be determined empirically.

The duration terms were included in both linear and squared forms to allow for the expected tapering-off of earnings growth with duration. A full set of interactions with the sex term was included because the structure of female wages can be expected to differ markedly from those of males. This is exacerbated by the fact that a significant number of women may be involved in part-time jobs, whereas this is unlikely to be the case for men. Thus hours of work, which are unfortunately unavailable, may play a significant part in explaining the variation in female wages.

The second stage of the analysis was to examine the changes which had occurred over time. This was done in two ways:

- (i) by combining the data for the three years in different ways and performing regressions with dummy variables representing time included; and
- (ii) by decomposing the change in average annual wages into components due to changes in the structure of wages and to movements through that structure.

4.2 Regressions including Time

The years were regressed together in pairs, and the simple regression model specified earlier was modified by the addition of terms for time on its own and for its interaction with the other variables.

The model was:

$$\ln W = a + bF + \sum_i (c_i + d_i F) Z_i + \{ \sum_i (e_i + f_i F) Z_i + m + nF \} t + U$$

where t is the time dummy, expressed in years from the earlier set of observations in the regression;

Z_i stands for characteristic i (including the continuous variables and their squares);

and a, b, \dots are coefficients not necessarily having the same meanings as in the previous equation.

The meaning of the coefficients becomes clear when we examine the partial derivative of the function with respect to time. The question may be asked as to whether it is valid to take these partial derivatives, since time appears as a discontinuous dummy variable. However, if appropriately specified, time is in fact a continuous variable, of which we happen to have only three observations, i.e. 1975, 1980 and 1985. It is therefore perfectly valid to examine the partial derivative if it exists, which it does, given the form of the function. The partial derivative is:

$$\frac{\partial \ln W}{\partial t} = \sum_i (e_i + f_i F) Z_i + m + nF$$

Consider an individual whose characteristics match the omitted categories, and who is at the start of his working career.

$$\text{Then } Z_i = 0 \text{ for all } i;$$

$$F = 0$$

$$\text{and } \frac{\partial \ln W}{\partial t} = m$$

Thus m is the proportional rate of change of such an individual's wage. The coefficients e_i, f_i, n give the increments which must be added for individuals whose characteristics fall into other categories. It should be noted that wages are expressed in nominal rather than real terms, and thus the rate of increase is that of nominal wages. However, the whole analysis can easily be expressed in real terms by adjusting m . The relativities expressed in the values of the other coefficients are not affected.⁴

When doing the combined regressions, a complication arises because the three surveys each cover different areas. The 1975 and 1985 surveys are the most interesting because they are the earliest and latest surveys available, and because they cover the largest areas. Thus a combined regression was run using only the areas common to these two surveys. To examine further what happened within this period, regressions were run combining the 1975-80 and 1980-85 data, as well as that for 1975-85, using only the areas common to all three surveys.

4.3 Decomposition Analysis

It is possible to decompose the difference in mean wages between the different years using standard techniques developed and used in studies on discrimination⁵. 'Decomposing the difference' is something of a misnomer in the present context. A brief discussion of the method will illuminate this.

As conventionally used, we consider two functions of the same form

$$Y_1 = f_1(X_1) \text{ and } Y_2 = f_2(X_2)$$

where X_1 and X_2 are vectors of characteristics of two populations, and f_1 and f_2 are the fitted functions which best explain the variance of Y in terms of the characteristics. Now, for certain types of function, specifically linear ones in the analysis usually presented,

$$\bar{Y}_1 = f_1(\bar{X}_1) \text{ and } \bar{Y}_2 = f_2(\bar{X}_2)$$

where the bars indicate arithmetic mean values. The object of the exercise is to explain the difference between the means by decomposing it into its components due to changes in the set of characteristics, and changes in the function itself. This is done as follows:

$$\begin{aligned} Y_2 - Y_1 &= f_2(X_2) - f_1(X_1) \\ &= f_2(X_2) - f_2(X_1) + f_2(X_1) - f_1(X_1) \end{aligned}$$

where the Y 's and X 's, written without the bars, are taken to represent arithmetic mean values.

Now $f_1(X_1)$ is taken to be linear,

i.e.
$$f_1(X_1) = a_1 + \sum_{j=1}^m b_{1j} X_{1j} = \sum_{j=0}^m b_{1j} X_{1j}$$

where X_{1j} is a scalar variable representing the mean value of characteristic j ($j=1, \dots, m$) for population i

$$b_{10} = a_1$$

$$X_{10} = 1$$

and a_1 and b_1 are the regression coefficients.

$$\begin{aligned} \text{Then } Y_2 - Y_1 &= \sum b_{2j} X_{2j} - \sum b_{2j} X_{1j} + f_2(X_1) - f_1(X_1) \\ &= \sum b_{2j} (X_{2j} - X_{1j}) + f_2(X_1) - f_1(X_1) \\ &= \{f_2(X_2 - X_1)\} + \{f_2(X_1) - f_1(X_1)\} \end{aligned}$$

where Σ means the sum from $j=0$ to m . The first term represents the change in Y which occurs as a result of the change in characteristics of the population when the function is standardised, and the second, that which occurs as a result of changes in the function when the characteristics are standardised across the two

populations. Furthermore, since the functions are sums of the various effects due to the different characteristics, each part can be further decomposed into components corresponding to these effects.

It should be noted that an alternative decomposition is possible,

$$\begin{aligned} \text{i.e. } Y_2 - Y_1 &= f_2(X_2) - f_1(X_2) + f_1(X_2) - f_1(X_1) \\ &= \{f_2(X_2) - f_1(X_2)\} + \{f_1(X_2) - f_1(X_1)\} \end{aligned}$$

where the decomposition is referred to f_1 rather than f_2 . There is no a priori reason to choose one method above the other, and where they produce very different results, it is usual to base conclusions on the mean of the two sets of results.

In the present application, the variable Y is replaced by the logarithm of the wages in a certain year. Thus $Y = \ln W$, and decomposition explains the difference in the mean values of $\ln W$ for the two years. Now the arithmetic mean of $\ln W$ is the logarithm of the geometric mean of W , and the decomposition explains

$$\overline{\ln W_2} - \overline{\ln W_1} = \ln \overline{(W_2/W_1)}$$

i.e., the logarithm of the ratio of the geometric mean wages. Under continuous compounding at a constant rate of growth r ,

$$\frac{d \ln W}{dt} = r, \text{ where } t = \text{time}$$

which, on integration, gives

$$\ln (W_2/W_1) = r (t_2 - t_1)$$

where $W = W_2$ at $t = t_2$, and similarly for W_1 .

$$\text{Thus } r = \frac{\ln (W_2/W_1)}{t_2 - t_1} = \frac{\ln W_2 - \ln W_1}{t_2 - t_1}$$

Hence decomposition decomposes the logarithm of the ratio of the wages, or, alternatively, the average rate of growth of wages, into that part which is due to the change in earnings functions while keeping characteristics constant, and that which is due to the change in characteristics. In other words, the average rate of growth is split into parts due to changes in the structure of earnings and to movements through that structure.

The analysis presented has been carried out using nominal rather than real

wages. To see how changes in the price level affect the analysis, consider the earnings function again:

$$\begin{aligned}\ln W &= a + \sum_j b_j X_j + U \\ &= \ln PW'\end{aligned}$$

where W' = the real wage, and P = the price index.

$$\text{Then } \ln W' = (a - \ln P) + \sum_j b_j X_j + U$$

Thus, the analysis can be adjusted to real terms by decreasing the intercept by $\ln P$, i.e., the entire effect of the price change is confined to the constant. In the decomposition analysis,

$$\begin{aligned}\ln W_2 - \ln W_1 &= \ln (PW_2') - \ln W_1 \\ &= \ln W_2' - \ln W_1 + \ln P\end{aligned}$$

where P is the price index in period 2 relative to period 1.

$$\text{Now } \ln W_2 - \ln W_1 = f_2(X_2 - X_1) + f_2(X_1) - f_1(X_1)$$

$$\text{Therefore } \ln W_2' - \ln W_1 = f_2(X_2 - X_1) + \{f_2(X_1) - \ln P\} - f_1(X_1)$$

Thus the entire decomposition can be brought to real terms by subtracting $\ln P$ from f_2 , i.e., by adjusting the part of the decomposition due to the change in function, and, more specifically, to the change in the constant term.

The decomposition in real terms can also be adjusted to the average rate form as follows.

The average rate of change r is given

$$\begin{aligned}r &= \frac{\ln W_2 - \ln W_1}{t_2 - t_1} \\ &= \frac{\ln W_2' - \ln W_1 + \ln P}{t_2 - t_1} \\ &= \frac{\ln W_2' - \ln W_1 + p}{t_2 - t_1}\end{aligned}$$

where p is the average rate of change of prices between t_1 and t_2 using continuous compounding.

Thus $r = r' + p$

where r' is the average rate of change of real wages.

$$\begin{aligned}\text{Therefore } r &= \frac{f_2(X_2) - f_1(X_1)}{t_2 - t_1} + \frac{f_2(X_1) - f_1(X_1)}{t_2 - t_1} - p \\ &= r_c + (r_f - p)\end{aligned}$$

where r_c and $(r_f - p)$ are the real rates of change due to characteristics and functions, respectively.

Thus the analysis can be adjusted to real terms by subtracting the average rate of inflation from the growth rate due to the change in the constant term.

5. RESULTS

The discussion is broken into two parts: firstly, regressions including simple and time effects only, and, secondly, a decomposition of the change in average wages between 1975 and 1985.

5.1 Regression

The regression results are given in Tables A2, A3 and A4 for 1975, 1980 and 1985, respectively. The first four columns correspond to all areas, the second four to the areas common to the 1975 and 1985 surveys, and the last four to those common to all three surveys. The regressions are highly significant⁶, as can be seen from the F-values, and explain more than 50 per cent of the variance (the R² statistic shown has been adjusted for degrees of freedom).

The omitted categories correspond to an unskilled married male head of household living in family accommodation in Johannesburg, employed in the manufacturing sector and having an education of less than Standard 5. This hypothetical worker then constitutes the standard against which those in other categories are compared, and the coefficients of the dummy variables measure the extent of the difference.

Most of the coefficients of the simple terms are significantly different from zero at much better than the 1 per cent level, and have the expected signs. Many of those for interactions with female sex are also significantly different from zero, confirming that the structure of female wages is somewhat different from that of males, as expected.⁷ It can be seen that the coefficients vary as the area covered is reduced. This indicates the presence of some area-interaction effects. Indeed, it is likely that there are other significant interaction effects as well.

Some preliminary work (Hofmeyr, 1989, pp.26-32) showed that there was a scatter of largely isolated interactions which were significant. However, these have been ignored in the formal model for two reasons: (i) they are mostly isolated, indicating no consistent trend for, say, sectoral pay to vary with area; and (ii) due to the large number of dummy variables, the number of variables when even first-order interactions are included is large (of the order of 200). This has several consequences: the size of the problem is such that special techniques such as stepwise regression have to be used in order to accommodate the problem on all but very large computers; the interpretation of results becomes highly problematic because of the complexity of the model; and the large number of interaction terms introduces severe problems of multicollinearity, with the resulting imprecision in the determination of individual coefficients and further difficulties in

interpretation of results.

The results for the regressions using time dummies are given in Tables A5-A7. Tables A5 and A6 refer to 1975-80 and 1980-85, respectively, using the area common to all three surveys, and Table A7, to the decade as a whole, using the areas common to the 1975 and 1985 surveys. The results are summarised in Tables A8-A12, in which the various effects are expressed in percentage form^a. The rates of growth are expressed in real terms; the consumer price index for the low-income groups has been used as the basis for the adjustment.

Once again, the regressions are highly significant, and explain more than 65 per cent of the variance of the data. It can be seen from Tables A10 and A12 that wages for a member of the omitted categories decreased in real terms at a rate of over 3 per cent per annum over the decade. This was unevenly spread over the first and second halves: 4,7 and 2,2 per cent per annum respectively. Presumably the fact that the real wages of unskilled workers in manufacturing declined over the decade is due to the overall poor performance of the economy, which would be expected to affect the unskilled most severely. However, the fact that these wages performed less poorly in the second half of the decade than in the first half, despite the worsening economic performance, might reflect the effect of increasing unionisation and labour militancy.

The various effects revealed by the regressions will now be discussed in detail.

5.1.1 Sex Effects

The effect of sex is apparent in two ways: as the coefficient on the simple term representing female sex, and as the coefficients on the terms representing the interaction of sex with the various other effects. Only the simple term will be discussed here; the interaction terms will be discussed under the headings of the other variables involved. The coefficient on the simple term is shown under the column 'Female' in the row labelled 'Constant'. This is significantly negative, even after taking account of differences in characteristics between the male and female labour forces. For 1975, the effect varies between 40 and 48 per cent, depending on which areas are used. This drops to between 35 and 42 per cent when in-kind wages are included, indicating that a significantly higher proportion of female wages is made up of such benefits than is the case for males. However, this effect is restricted largely to the unskilled and, to some extent, the semi-skilled ranks. To what extent are shorter average hours worked by women responsible for their lower wages? This is unlikely to be a significant factor except in the case of domestic service, i.e., it will be restricted to the unskilled level (the other major area of part-time employment, self-employment, has been excluded

from the ambit of this work). In any event, it is unlikely to be a major factor. The Current Population Survey based on the 1985 census found that, in August 1986, less than 5 per cent of women were working less than 35 hours per week, as against just under 2 per cent for men (RSA, 1987).

The negative effect associated with female sex decreases marginally in 1980 when cash wages are considered, and then decreases somewhat more markedly in 1985. This effect is enhanced when more areas are included. The negative effect is greater in the additional areas and decreases more rapidly in a way that is not evenly spread across the other categories, i.e., there are more complex interactions present. In fact, the regressions with time dummies show that the overall rate of increase of female wages was not significantly different from that for males, except when the larger area is used. Total wages show a somewhat different behaviour. The negative effect decreases far less rapidly, indicating that in-kind payments became less important over the decade. Once again, they are clearly more important in the additional areas. In other words, there was a tendency over the decade to substitute cash for in-kind payments, particularly in the additional areas. To what extent the increase in average wages for women was due to an increase in average hours of work is not clear.

5.1.2 Area Effects

The main effects will be discussed first. We will then return to the question of sex at the end. Examining the first column of Table A2, we can see that geographic segmentation of the labour market was clearly important in 1975⁹. With the exception of the Cape Peninsula, Durban and Krugersdorp, all the simple coefficients are both negative and significantly different from zero at better than the 5 per cent level, i.e., rates of pay were significantly worse in these areas than in Johannesburg, the omitted category. Only the Cape Peninsula has a positive coefficient. This implies that this was the only area in which the rate of pay was significantly higher than in Johannesburg.

Leaving Cape Town aside for the moment, these results are eminently reasonable. They indicate that generally wages decreased as one moves away from Johannesburg and the other main industrial areas. A secondary factor which seems to come into play is closeness to the so-called homeland areas where the labour supply would be plentiful and less subject to influx control. This may be the main factor responsible for the high wages in Cape Town, where distance and the more rigorous enforcement of influx control may have created an artificial scarcity of African labour. There is little change in the coefficients when payments-in-kind are included, suggesting that, for men at least, these payments were comparatively unimportant.

As far as women are concerned, wages were significantly lower than those for men overall, as has already been noted. Apart from this general effect, cash wages were significantly lower in Durban, Port Elizabeth, Pietermaritzburg and Bloemfontein. The reason for this is not clear. When total wages are considered, the effect already noted, viz., that the difference between male and female wages decreases, is enhanced in the smaller centres. This is not surprising, since the importance of payments-in-kind would be expected to decrease as the degree of industrialisation increases. One might expect this effect to be accounted for elsewhere, e.g., by the sectoral coefficients. However, the sectoral breakdown is probably too crude to capture the degree of industrialisation adequately.

Turning now to the results for 1980, we can see that wages in Pretoria have caught up with those in Johannesburg. If we compare Krugersdorp and Kempton Park with East/West Rand, we see that wages in these areas show the same effect. Durban, in contrast, has fallen behind. Including payments-in-kind increases wages in the smaller centres in comparison to Johannesburg. In Durban female wages have largely made up the local backlog, whereas in Pretoria they appear to have fallen behind. It is likely that they simply have not kept pace with the overall trend owing to the generally smaller degree of industrialisation in Pretoria as compared with Durban, for example.

The results for 1985 show a continuation of the trends already observed. There is now no longer any significant difference between Johannesburg and its hinterland. Apart from the Cape Peninsula, the other areas have continued to fall behind, however, with the exception of Bloemfontein, which has caught up a little but still remains the worst-paid area. The fact that OFS Goldfields, Klerksdorp, Kimberley and Bloemfontein tend to group is also expected, since they are all in the same general area of the country, and would tap the same labour market. Their nearness to some of the most impoverished areas, e.g., Lesotho, and the fact that they are the worst-paying areas is probably no coincidence. Again, inclusion of payments-in-kind makes little difference.

As regards female wages, these were significantly worse than the overall trend in a number of areas, although this effect is lessened when payments-in-kind are included. The nearness to homeland areas may explain this partly, but then it is not clear why Pretoria and Pietermaritzburg are exempt from this effect.

Tables A5-A7 show the effect of introducing a time dummy. These results formalise the trends already observed. The coefficients on the simple time terms are significantly positive for Pretoria, and negative for all the others except Bloemfontein, indicating significant differences from the overall time trend.

Tables A10 and A11 summarise the 1975-85 results in percentage form. When these results are examined in conjunction with those for the individual years (see Tables A2-A4), the picture that emerges is one of a unifying industrial heartland with Johannesburg pulling up its surrounding areas, while outlying areas were increasingly left behind. This suggests a breaking-down of rigid segmentation, caused mainly by influx control and other labour laws.

5.1.3 Occupational Effects

The occupational coefficients for 1975 are all positive and highly significant, except for the category 'managerial' with only 12 members.¹⁰ This implies that all of these occupations (except managerial) are more highly-rewarded than unskilled labour (the omitted category). Furthermore, professionals are the most highly-paid, followed by skilled, clerical and semi-skilled categories, in that order. However, the only differences which are significant are those between skilled and semi-skilled, and between clerical and semi-skilled (5 per cent level), and between professional and semi-skilled (10 per cent level).

When the smaller areas (common to the various surveys) are used, all the coefficients (except that for managerial) remain significantly different from zero, but the sequence of magnitudes inverts, i.e., the semi-skilled now appear as the most highly paid. However, the differences between them become insignificant at the 10 per cent level. This is presumably due to two factors: the presence of interactions and the decreasing size of the sample. The inclusion of payments-in-kind once again makes little difference.

The situation for women is markedly different, however. There are three occupations with substantial numbers of women in 1975: professional, semi-skilled and unskilled¹¹. The coefficients on female sex for professional, semi-skilled and clerical are not only significantly different from zero but also from each other. Tables A8 and A9, expressing the results in percentage form, clearly show that women experience substantially greater occupational differentials than men. The inclusion of payments-in-kind substantially lessens the differentials between unskilled females and those in other occupations - a not unexpected result.

The 1980 regression also produced highly significant occupational coefficients. Managers are now the best-paid group, and the coefficient is significant at the 5 per cent level. However, once again not too much should be read into this result, as there were only four managers in the sample. The professional and skilled groups emerge as the next most highly-paid, and there is no significant difference between them. The clerical and semi-skilled groups are next, with no significant difference between them. The professional group differs from the semi-skilled

and clerical groups at the 5 and 10 per cent levels, respectively, in the full sample, although these differences become insignificant when the sample is restricted to the common areas. This is probably due to the relatively small number of professionals (38 in the restricted sample). The skilled group, however, differs significantly from both the clerical and semi-skilled groups, even with the restricted sample.

As with 1975, there are significant differences between male and female pay, and substantial occupational differentials.

The 1985 regressions show the same general pattern as 1980, with all coefficients positive and significantly different from zero at the 1 per cent level. Professional and skilled wages have continued to climb relative to clerical and semi-skilled, and the differences are significant at the 1 per cent level. Professional and skilled wages are, however, not significantly different from each other, except at the 10 per cent level in the case of the smaller area. As before, there are substantial differences between male and female pay, and substantial occupational differentials. It is also evident that there are quite severe area interaction effects, with regard to both males and females. While these can in some instances be put down to the small numbers in certain categories (managerial, male professional, female skilled), this by no means accounts for all the variations observed. The inclusion of in-kind payments once again makes little difference in the case of males¹², but more so for females.

The results for males show a widening of occupational differentials over time, although there is some narrowing of the gap between the clerical and semi-skilled, on the one hand, and the unskilled, on the other hand, between 1975 and 1980. The overall result is consistent with the poor performance of the economy over the decade, circumstances under which the less-skilled can be expected to do worse than the more skilled, as they are the most dispensable part of the labour force. The results for females are considerably more ambiguous, however. For the four categories having appreciable numbers of members, i.e., professional, clerical, semi-skilled and unskilled, differentials first narrow to 1980, and then widen. It is not clear why this should have happened.

As can be seen from Table A7, for the decade 1975-85, the regressions with the time dummies confirm these impressions. All the coefficients on the simple time terms are positive and significant at the 5 per cent level, indicating that wages in these categories increased more quickly than for the omitted category, unskilled labour. However, it is clear from Tables A5 and A6 that nearly all the significant changes were confined to the second half of the decade.

Ignoring managers, the most rapid increases over the decade were for professionals, followed by skilled, clerical and semi-skilled labour, in that order. The rates for women were not significantly different from those for men, except in the case of professionals, where women increased more slowly than men, largely because of the rapid widening of male occupational differentials. The rate of increase in wages for unskilled workers whose characteristics fall into the omitted categories (hereafter known as omitted category workers) was approximately 8,6 per cent per annum over the decade. Basic cash wages for professional, skilled, clerical and semi-skilled male workers increased at 12,1; 11,4; 9,8 and 9,5 per cent per annum, respectively and the rates for total basic wages were very similar. It is interesting to note that apart from professionals these rates are below the average rate of inflation, which was 11,9 per cent per annum over the decade for low-income earners, and 12,2 per cent overall. Thus most of the rates of increase represent a decrease in real terms. However, it should be realised that interaction effects are cumulative. Thus the basic cash wages of a female professional in community services with a diploma would have increased at a fractional rate of $(0,0861 + 0,0284 + 0,0353 - 0,0391 + 0,0089 + 0,0220 + 0,00372 - 0,00703)$ or 13,8 per cent per annum, i.e., a real rate of 1,9 per cent per annum.

5.1.4 Sectoral Effects

Most of the simple sectoral coefficients for 1975 are negative and significantly different from zero at better than the 10 per cent level. Two of the exceptions - agriculture and electricity, gas and water - had less than ten members each, and can therefore be ignored. The other exception, business services, has a negative coefficient, but it is not significant at the 10 per cent level. When the smaller areas are used, the coefficient on construction is no longer significantly different from zero. The negative signs on the coefficients imply that these sectors were paid worse than manufacturing, the omitted category. The overwhelming majority of women were concentrated in just three sectors: manufacturing, community services and trade and accommodation. Women were significantly worse paid than men in all three. Apart from the general negative effect already commented on, which is applicable to the omitted category (manufacturing), there are additional significant effects related to the other two sectors.

Ignoring agriculture, community services is the worst-paid sector for both men and women¹³. This is not surprising, since it is comprised largely of teachers and nurses at the upper end, and domestic servants at the lower end. Even when payments-in-kind, which tend to be significant to these groups, are included, the relative position does not change, although the difference decreases somewhat. Both sets of occupations tend to be areas of the labour market which are

somewhat divorced from the rest, and hence members of these groups are vulnerable to exploitation. The State is a largely monopsonistic employer of teachers and nurses. The alternative occupation for women, who make up most of the membership of these occupations, would probably be domestic service, although this is now changing. Domestic service tends to be the employment of last resort, and is not covered by unions, wage agreements, etc. In addition, the application of influx control may explain some of the difference, in that the rule of employing those with urban rights in preference to others tended to be applied much more strictly to industrial and commercial jobs than to domestic service. Finally, shorter or part-time hours for women may also play a part, particularly for those in domestic service-type jobs.

Mining is the next worst-paid, even when payments-in-kind are included. This is not surprising since even though there was spectacular growth in average wages in mining between 1970 and 1975, there was a huge gap to be closed between mining and urban industrial employment. However, it may not be appropriate to attach too much significance to this, given the small number of miners in the sample (44).

We come next to trade and accommodation and transport and communication, which are not significantly different (for men). Wages in the two major industrial sectors (judged by employment), construction and manufacturing, were very similar after standardising for other effects, and were the highest of the main sectors. The inclusion of payments-in-kind decreases the size of all the coefficients, indicating that they play a smaller part in manufacturing wages than in the other sectors: a not implausible result.

Moving on to 1980, we see that only trade and accommodation and community services were paid significantly differently from manufacturing¹⁴. Community services was still the worst paid sector. The most dramatic improvement was that of mining, which was no longer significantly different from manufacturing. When payments-in-kind are included, the coefficient on mining becomes positive, but is still not significantly different from zero¹⁵. The position of women in trade and accommodation was no longer significantly worse than in manufacturing, and had therefore improved significantly as compared with 1975. Women in community services were still significantly worse paid, however.

When we come to 1985, we find that manufacturing has been surpassed by mining and business services, which are not significantly different from each other, however¹⁶. Although the inclusion of payments-in-kind improves mining's relative position, there is still no significant difference between it and business services.

Community services and trade and accommodation were still significantly worse paid than the other sectors, although the coefficient on trade and accommodation becomes insignificant when the common area is used. Women were significantly worse paid than the overall norm only in the community services sector. The inclusion of payments-in-kind pulls up the lower-paid groups somewhat.

The regressions with time dummies for the decade 1975-85 produced significant positive coefficients on the time terms for all of the important sectors except construction. This confirms that wages in these sectors increased significantly faster than for the omitted category, manufacturing. The coefficient for mining appears anomalous in that it is significant at only the 5 per cent level, despite the big changes in mining wages which we have already noted. However, this is due to the small number of miners (14) left in the 1985 sample once the major mining areas have been removed to match the 1975 survey areas. It can be seen from Tables A5 and A6 that most of the movement of sectoral wages seems to have taken place in the second half of the decade. The situation for women was somewhat different, however. Examination of Table A7 shows that female wages in the community services and trade and accommodation sectors rose significantly faster than for males over the decade as a whole. Although this effect is somewhat less clear when the sample area is more restricted, it seems that most of this change took place over the first half of the decade.

The changes in the sectoral coefficients suggest a process of unification of the labour market over the decade, with the increasing breakdown of segmentation,¹⁷ both between sectors and between men and women. The factors which isolated the community services sector from the rest were obviously less important in 1985 than in 1975, but they nonetheless still played a significant part. Even the result for mining is not inconsistent with a unification of the labour market. Under competitive conditions, one would expect to find dangerous and unpleasant work, such as that in mining, more highly rewarded than safer and less arduous occupations.

5.1.5 Educational Effects

The educational coefficients are all positive and significant, and increase with educational level: this is what would be expected. It would normally be expected that the rewards to education would be reflected in access to better jobs, but it appears that education is rewarded as such, even after taking into account occupation. This is probably partly due to the crudity of the occupational classification. There is some variation in coefficients when the area is restricted, again indicating the presence of area interactions. The biggest variation is for degreed people. However, this is probably due to the small numbers involved: the

sample decreases from 26 to 7. Women's pay followed the same pattern as men's, except for those with Standard seven or eight, whose pay was significantly higher. This may reflect the fact that many more females than males with this qualification were in teaching jobs, i.e., professional ones, and were therefore getting somewhat better pay than would be expected from the male pattern.

The results for 1980 and 1985 are very similar. The regressions with time dummies confirm the impression of a lack of movement: few of the coefficients on the time terms are significant.

5.1.6 Household and Marital Status Effects

These variables have been included not because they are interesting in the present context, but because they have been found in many studies to have significant explanatory power, presumably because they serve as a proxy for some unobserved attributes such as motivation and commitment.

The omitted categories are 'head of household' and 'married'. It is therefore to be expected that the coefficients on the simple terms will emerge with negative signs, which they do, in all the regressions in all the years, and they are mostly significantly different from zero. The interaction terms with female sex all have positive coefficients, and some are significant, suggesting that the motivating (or other) effects are not as great for women as for men.

5.1.7 Accommodation Effects

This may at first seem a surprising set of variables to include in the regression. However, it is potentially important in that it is likely to enable one to pick up differences in wages due to migrant (as opposed to settled) status, as migrants would be living singly rather than as families. It will also separate out living-in domestic servants, as only they would be shown as living singly in White residential areas.

In 1975 all accommodation coefficients are negative when considering cash wages, and all except those for 'compound' are significant¹⁸. The inclusion of payments-in-kind reverses the sign on 'compound', but the coefficient is still not significant, and decreases the negative magnitude of 'business premises' and 'white areas' somewhat, but makes relatively little difference to male wages otherwise. When we come to female wages, an examination of the percentage effects (Tables A8 and A9) indicates that women were appreciably worse paid than men except in the category 'white areas'. Inclusion of payments-in-kind makes a substantial difference to both male and female pay in this category,

raising them a similar amount, but relatively little difference to the other categories. However, whereas this leaves male pay in this category still at the bottom of the pile, it raises female pay almost to the top, and there is very little difference between it and that in the omitted category (family accommodation). In fact, once payments-in-kind are included, the effect of type of accommodation on female wages is relatively small.

Since the omitted category is family accommodation, it can be taken that most of the people falling into other categories are migrants. It would appear, therefore, that migrants did in fact suffer some degree of disadvantage. However, it is likely that if there is indeed some form of discrimination, it could well appear in some indirect form such as unequal access to jobs rather than as a direct salary effect.

Examination of the coefficients on the simple terms suggests that they fall into two groups: 'lodger', 'hostel' and 'compound' are all relatively small in magnitude, whereas the other two are relatively large. It is not surprising to find that the cash wages of living-in domestic servants were worse than those of other workers, for two reasons: firstly, they are somewhat isolated from the rest of the labour market, as pointed out earlier, and, secondly, a large part of their remuneration takes the form of in-kind payments. However, while the inclusion of these lessens their disadvantage, it does not change their relative position except in the case of women. Workers living on business premises would tend to be cleaners and watchmen, and it is not surprising to find them being paid similar rates to domestic servants. This suggests that there may have been a significant degree of segmentation in the labour market for males, but not for females.

The results for 1980 are similar to those for 1975, except that most categories significantly improved their positions relative to the omitted category¹⁹, with the largest increase being that for 'white areas'. The position of 'lodger' deteriorated markedly, however. The inclusion of payments-in-kind once again dramatically improves the situation of the lowest two categories, the coefficient on 'business premises' becoming insignificant. The effect on woman's wages is nothing short of astounding, however: as can be seen from Table A9, women in white areas were the best-paid group, receiving some 30 per cent more than those in family accommodation²⁰! This seems highly implausible, given the earlier remarks about domestic service and common observation, which suggests that this is not a highly sought-after career. It is more likely that the results reflect inaccurate valuation of payments-in-kind.

The 1985 results are similar to those for 1980. The main differences are that the category 'lodger' has recovered to its 1975 level, and the category 'business premises' has continued to improve relative to the other categories. Nonetheless, it remains significantly worse than the omitted category. When considering the

position of women, the categories 'hostel', 'business premises' and 'compound' can be ignored due to the small numbers in each. It can be seen from Tables A8 and A9 that females in the category 'white areas' still come out as the worst-paid category when cash wages only are considered, and as the best when in-kind payments are included²¹.

The accommodation coefficients divide into two groups in respect of cash wages: a high group containing most workers, and a low group containing those in domestic service-type jobs. The inclusion of payments-in-kind eliminates most of the distinction between them in 1975, and more than compensates in 1980 and 1985. The interesting point highlighted by the present analysis is the significant upward movement of those in the lower-paid group over the decade, particularly in the first half (see Tables A5-A7). This suggests that even if in-kind benefits were somewhat over-estimated, there was a tendency for markets to unify.

Finally, while there is some evidence that migrants suffered some direct wage discrimination in 1975, there is nothing to suggest this in the 1980 and 1985 results.

5.1.8 Experience-type Effects

These variables include duration of current job and length of working career and their squares. They serve as proxies for experience and training. They are all significant explanatory variables, and the signs go in the expected directions²². The signs on the squared terms mean that although earnings increase over time, this occurs at a decreasing rate. The inclusion of payments-in-kind makes little difference as far as males are concerned. The results for all three years are very similar, and the regression with time dummies does not produce significant coefficients on most of the simple time terms.

There are some significant differences between male and female wage profiles, particularly in 1975 and 1980, though these tend to disappear when the area is reduced, suggesting that the differences are more important in the outlying areas. Inclusion of payments-in-kind makes somewhat more difference than with men, as might be expected. In 1985 this has the effect of rendering differences between male and female profiles insignificant. This is further evidence to suggest that some unification of the labour market had taken place by 1985.

5.2 Decomposition Analysis

The results are summarised in Table A13. They have been adjusted for inflation²³, and show the contributions of the various effects to the growth rate of the mean wage. They are expressed in the form of average annual growth rates, and are

therefore cumulative (as shown in Section 4). The first three columns give the effects due to the change in earnings functions or structure of earnings, and the second three columns the effects due to the changes in the average values of the characteristics, i.e., movement of the population through the structure. The first column in each set of three gives the simple effect, the second, the additional effect associated with female sex, and the third, the sum of the simple and female effects.

Section A gives the decomposition using the 1985 earnings function as the basis for comparison, Section B that using the 1975 earnings function, and Section C an average of these two sets of results. The arithmetic mean of the growth rates was used. It can be seen that changing the reference function did not make much difference to the result. The results for both basic cash wages and total basic wages are presented: in fact, they differ very little. For simplicity, the discussion will be based on the averaged results for basic cash wages.

The growth in average cash wages was 13,30 per cent per annum over the decade in nominal terms²⁴, and 1,39 per cent per annum in real terms²⁵. Due to rounding errors, etc., the value predicted by the fitted equations is slightly different, viz., 13,23 or 1,32 per cent per annum. Overall, the change in the earnings functions contributed almost nothing to the increase in average wages, while changes in characteristics were responsible for almost all the growth observed. However, this is somewhat misleading, as there are cancelling effects which arise due to changes in the structure of earnings. These effects will be considered first.

The constant term gives the contribution from the growth in wage levels of omitted-category workers. As can be seen, the contribution was negative since the nominal growth rate of these wages was below the rate of inflation, as has already been noted. Apart from area, all the other simple effects contributed positively to the growth in the average wage. The largest²⁶ was from the growth of sectoral wages relative to manufacturing, at 0,8 per cent per annum. The increase in occupational wages relative to unskilled labour also contributed almost 0,8 per cent per annum. The increase in experience-related benefits contributed 0,7 per cent per annum. The remaining contributions were comparatively small in magnitude.

Considering female wages, we can see there are some significant differences. The effect labelled 'sex' is that attributable to changes in the wage levels of women relative to men, otherwise in the omitted categories. Improvements in these contributed 1,1 per cent per annum, or over 85 per cent of the overall change in average wages. In this case the inclusion of payments-in-kind does make a

substantial difference: with total wages, this effect contributed less than 0,8 per cent per annum, reflecting the fact that women experienced a substantial substitution of cash for in-kind wages over the decade. The next most important effect was the increase in sectoral wages for women (principally in community services and trade and accommodation, as has already been seen) relative to manufacturing, contributing 0,7 per cent per annum. The remaining effects were relatively small.

We consider now the contributions made by changes in the average characteristics of the sample, i.e., movement of the population through the wage structure. The major effects were upward movement through the occupational and educational structure, which contributed 1,4 per cent per annum to overall growth, and the increasing proportion of women in the sample, which contributed to a decrease in average wages to the extent of 0,4 per cent per annum. The other effects were minor.

6. CONCLUSIONS

Perhaps the most striking feature of these results is that real wages for those in the omitted categories, i.e., essentially male unskilled workers in the manufacturing sector in Johannesburg, dropped on average by more than 3 per cent per annum between 1975 and 1985. However, this decline was unevenly spread over the decade, with the rate of fall in the first half being more than double that in the second half. At the same time, occupational differentials for males increased, particularly in the second five-year period. This increase was, on its own, not sufficient to offset inflation, except in the case of professionals. This is entirely consistent with the poor performance of the economy over the decade. The unskilled would be least able to defend their economic position, but certain skilled groupings would still be in short supply, even in recessionary times. The uneven spread, particularly of the fall in unskilled wages, over the two halves of the decade may be indicative of the increasing influence of trade unions and industrial action in the second half.

Another striking result concerns the apparent discrimination suffered by women. In 1975 unskilled women in manufacturing were paid more than 40 per cent less than men, and the effect was even greater in some urban areas. In addition, women experienced much greater occupational differentiation than men. However, the inclusion of payments-in-kind lessens both of these sets of differentials somewhat. The position of women in the community services and trade and accommodation sectors was substantially worse than in manufacturing. There was, however, significant improvement over the decade, and sectoral differentials decreased considerably. Female wages generally kept pace with inflation. There was a tendency for in-kind wages to be substituted by cash over the decade. While some of the apparent disadvantage suffered by women can undoubtedly be explained by shorter average hours of work, it is unlikely to be the major part. However, what part of the improvement can be explained by increased hours is considerably less certain.

There were considerable sectoral differences in pay in 1975, with manufacturing the best-paid sector, and community services the worst (ignoring agriculture, which is barely represented in the mainly urban sample drawn by the BMR). There was a significant closing of these gaps over the decade, particularly in the first five years. Mining emerged as one of the best-paying sectors, with the inclusion of payments-in-kind making it unambiguously the best.

The decreasing importance of sectoral and sex differentials suggest that there was a unification of the labour market over the decade. Presumably this was

brought about by the breakdown of the segmentation associated with influx control.

There were considerable regional differentials in pay in all years, but the pattern changed somewhat over time. Johannesburg was one of the best payers and Bloemfontein one of the worst, both in 1975 and 1985. However, whereas there were significant differences between Johannesburg and its surrounding areas in 1975, these had largely disappeared by 1980. With the exception of Bloemfontein, which tended to catch up somewhat, most of the other areas were left behind. The male-female differential varied significantly between areas, particularly when cash wages only are considered. In Bloemfontein and the mining areas of the western Transvaal and Orange Free State women were particularly badly paid. Nearness to homeland areas, and therefore an abundant labour supply, may have something to do with this, but it does not explain all the variations observed. Leaving aside the specific effects for females, there appears to have been a unification of the labour market in the industrial heartland, with outlying areas being increasingly left behind. There was little change in the relative position of females, except for some areas when in-kind payments are included, the reasons for which are unclear.

Education and experience proved to be highly significant variables in explaining the wage distribution, and marital and household status were also to some extent. However, changes over time were relatively small.

The accommodation variables suggest that there was some direct wage discrimination against migrants in 1975, but this had almost entirely disappeared by 1980. Further, the results show that those in domestic service-type jobs were at a considerable disadvantage in 1975, but that this had decreased substantially by 1980, particularly if in-kind benefits are included. The dramatic improvement brought about in the position of living-in female domestics by this inclusion suggests that these benefits may have been overvalued by the BMR. Nonetheless, it remains true that there appears to have been some unification of the market.

The major factors which contributed to the increase in average wages are the lessening of the male-female differential, particularly at the unskilled level, the increasing occupational differentials for males, the closing or narrowing of sectoral wage gaps, increasing returns to experience, and upward movement of the population through the occupational and educational levels. The major negative influences have been the fall in real wage levels for unskilled males, not offset by increasing occupational differentiation, and the increasing proportion of women in the labour force. If we take occupation and education together to

represent the actual skill/responsibility level of an occupation, we see that movements through that structure contributed an increase of 1,4 per cent per annum, whereas changes in the levels of wages contributed very little overall.

These results may be contrasted with those found by Knight and McGrath (1987, pp.29-30) in a recent study. They analysed data from a private sector survey used for establishing industry norms for wages and salaries paid to labour whose jobs had been graded into nineteen levels depending on the degree of skill and responsibility required. They found an overall increase in real wages of 3,95 per cent per annum for the period 1976-85, of which 39 per cent was caused by the change in earnings functions, and 61 per cent by the change in characteristics.

They therefore found a significantly higher increase than in this study, and also that occupational wage levels had increased in real terms, contrary to what has been found here. This can presumably be attributed to the difference in sampling procedures. Their samples consisted simply of the set of clients subscribing to the surveys at the times each of these were conducted, and consequently were neither random samples nor even the same between the two years. As has been pointed out earlier, the samples used in the present study cannot be described as a random sample covering the whole country, or even the areas surveyed. Thus, neither set of samples can necessarily be expected to reflect national averages.

However, despite this, properly constructed models should reveal changes in the structure of earnings, as pointed out earlier. It is therefore of interest that Knight and McGrath found, as in this study, that occupational differentials relative to unskilled labour had increased (although much more than found here), that sex differentials had decreased, that the increasing proportion of women had lowered average wages and that change in occupational characteristics, i.e., movements up the occupational ladder, had been responsible for by far the largest part of the overall increase. They had only occupational grading and sex available as variables, and therefore their study could of necessity not estimate any of the other effects examined here.

In conclusion, despite using separate samples drawn from very different populations, both studies have come to broadly similar conclusions. This enhances the credibility of these conclusions greatly, as it makes it very much less likely that the effects observed can be attributed to the vagaries of the samples.

FOOTNOTES

1. Between 1976 and 1981 four of the so-called homelands were granted independence.
2. Figures for 1985 are not available as the mining sector stopped providing a racial breakdown of wages from 1985.
3. Van Niekerk (1983) gives the average ages of Africans leaving school: Standard 4 - 15 years - through to Standard 10 - 21 years. The age for those with a diploma was taken to be Standard 8 + 3 years, i.e. 22, and for a degree, Standard 10 + 3 years, i.e. 24. The minimum age for counting towards career experience was taken as 18 years.
4. To see this, consider the model again:

$$\ln W = a + bF + \sum(c_i + d_i F)Z_i + \{\sum(e_i + f_i F)Z_i + m + nF\}t + U$$

$$= \ln PW' = \ln P + \ln W'$$
 where W' is the real wage and P is the price index.
 Subtracting $\ln P$ from both sides, we have:

$$\ln W' = a + bF + \sum(c_i + d_i F)Z_i + \{\sum(e_i + f_i F)Z_i + m + nF\}t - \ln P + U$$
 Under continuous compounding with a constant rate of price increase p ,

$$\frac{d \ln P}{dt} = p$$
 which, on integration with suitable boundary conditions, gives

$$p = (\ln P) / t$$
 and
$$\ln W' = a + bF + \sum(c_i + d_i F)Z_i + \{\sum(e_i + f_i F)Z_i + (m - p) + nF\}t + U$$
5. For example, Banerjee and Knight (1985) and Knight and McGrath (1987).
6. For the purposes of the discussion, the 10 per cent level will be taken as the cut-off for significance testing, i.e., the comment that a coefficient is not significant or not significantly different from zero will be taken to imply a test at the 10% significance level.
7. The F-statistics for inclusion of the female interaction terms are 13,9 for 1975 with (36,6117) degrees of freedom, and 9,5 for 1985 with (40,5496) degrees of freedom, indicating that these terms are jointly significantly different from zero at better than the 1 per cent level.

8. Note that, as pointed out by Halvorsen and Palmquist (1980), the percentage change brought about by a dummy variable is given by
- $$100 (\exp (b_i) - 1)$$
- where b_i is the coefficient of dummy variable X_i .
9. It is, of course, true that even with competitive labour markets wages may vary between regions to compensate for different costs of living, different average costs of commuting to work, etc. However, it is unlikely that such factors would account adequately for the effects found, particularly given the high degree of government control of the movement of Africans between centres.
10. No significance should be attached to the result for managers owing to the small numbers involved.
11. There are only 5 managers and 29 skilled workers in the full sample. There are 57 clerical workers in the full sample, and 18 in the most restricted sample.
12. Managers do not strictly fit this pattern, but this result probably has no significance given the small numbers involved.
13. Mining becomes the worst-paid sector for men when the smaller areas are used. However, this should probably be ignored since there are only 44 miners in the whole sample (for 1975), and this falls to 16 when the area common to all three surveys is used.
14. Ignoring agriculture, which had only six members.
15. The fact that mining emerges as significantly better paid when the common area is used is of no consequence as the number of miners falls from 76 to 10.
16. As before, the fact that the coefficient on mining becomes insignificant when the common area is used is of no consequence, as the number of miners falls from 224 to 14.
17. As pointed out by Stegwee (1989, pp.8, 9), intersectoral wage differentials can exist even in a competitive labour market because of such factors as differences between the non-pecuniary aspects of jobs, and efficiency wage considerations which might vary systematically between industries. However, this is unlikely to account for more than a part of the differences found, at least in the earlier period, given South Africa's comprehensive system of African labour control.

18. That for 'lodger' becomes insignificant when the smaller areas are used.
19. There are, as usual, some changes in the coefficients when the sample is restricted to the common area. The most dramatic, that for 'compound', can be ignored as the number of individuals involved is reduced from 118 to 21.
20. The result for women in business premises should be disregarded, as there were only nine members.
21. This category can be ignored as far as males are concerned, as there are only 12 members in the full sample.
22. There is some loss of significance of the square of the job duration term in 1980 and 1985 when the smaller areas are used, but this does not invalidate the general conclusion that experience-type effects are important and go in the expected directions.
23. The average rate for the low-income group over the decade (11,9 per cent per annum) has been used.
24. For the samples corresponding to the areas common to the 1975 and 1985 surveys.
25. The reason this is different from the figure quoted in Section 3 is that the geometric mean wage is used here (see Section 4), whereas the arithmetic mean wage was used there.
26. Apart from 'sex', which is also a simple effect.

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APPENDIX TABLES

TABLE A1 FREQUENCY DISTRIBUTION OF DATA

Variable	1 9 7 5		1 9 8 0		1 9 8 5							
	Male	Female	Male	Female	Male	Female						
	No.	%	No.	%	No.	%						
Johannesburg	440	11,20	242	10,68	507	21,69	364	24,93	399	12,56	314	13,08
Pretoria	550	14,00	282	12,45	500	21,59	347	23,77	310	9,75	281	11,70
E/W Rand					569	24,57	316	21,64	408	12,84	302	12,58
Krugersdorp	77	1,96	59	2,60								
Kenpton Park	90	2,29	43	1,90								
Cape Peninsula	324	8,25	143	6,31					261	8,21	164	6,83
Vaal Triangle					318	13,73	157	10,75	304	9,57	183	7,62
Port Elizabeth	535	13,62	258	11,39					179	5,63	152	6,33
East London	328	8,35	241	10,64								
Umtata	170	4,33	141	6,23								
Durban	525	13,36	274	12,10	422	18,22	276	18,90	326	10,26	247	10,29
Pietermaritzburg	389	9,90	242	10,68					173	5,44	157	6,54
OFS Goldfields									212	6,67	148	6,16
Klerksdorp									245	7,71	159	6,62
Kimberley									176	5,54	161	6,71
Bloemfontein	318	8,09	248	10,95					185	5,82	133	5,54
Pietersburg	105	2,67	46	2,03								
Nelspruit	78	1,99	46	2,03								
Professional	102	2,60	381	16,82	52	2,25	156	10,68	120	3,78	351	14,62
Managerial	7	,18	5	,22	3	,13	1	,07	12	,38	1	,04
Skilled	202	5,14	29	1,28	88	3,80	15	1,03	304	9,57	28	1,17
Clerical	324	8,25	57	2,52	217	9,37	66	4,52	293	9,22	183	7,62
Semiskilled	1267	32,25	203	8,96	680	29,36	223	15,27	1461	45,97	338	14,08
Unskilled	2027	51,59	1590	70,20	1276	55,09	999	68,42	988	31,09	1500	62,47
Manufacturing	1085	27,62	251	11,08	1037	44,78	228	15,62	970	30,52	258	10,75
Mining	44	1,12			73	3,15	3	,21	196	6,17	28	1,17
Business Services	79	2,01	14	,62	80	3,45	36	2,47	99	3,12	54	2,25
Electr., Gas, Water	9	,23			6	,26			39	1,23	1	,04
Transport, Commun.	401	10,21	5	,22	141	6,09	11	,75	273	8,59	11	,46
Construction	427	10,87	5	,22	207	8,94	11	,75	273	8,59	10	,42
Trade, Accommod.	806	20,51	285	12,58	353	15,24	234	16,03	635	19,98	413	17,20
Community Services	1073	27,31	1705	75,28	414	17,88	936	64,11	691	21,74	1822	67,56
Agriculture	5	,13			5	,22	1	,07	2	,06	4	,17
< Std.5	1694	43,12	795	35,10	826	35,66	483	33,08	993	31,25	648	26,99
Std. 5/6	1206	30,69	721	31,83	758	32,73	496	33,97	980	30,84	704	29,32
Std. 7/8	657	16,72	408	18,01	475	20,51	317	21,71	671	21,11	557	23,20
Std. 9/10	305	7,76	198	8,74	230	9,93	113	7,74	459	14,44	373	15,54
Diploma	47	1,20	137	6,05	21	,91	46	3,15	47	1,48	102	4,25
Degree	20	,51	6	,26	6	,26	5	,34	28	,88	17	,71
Family	2500	63,63	1651	72,89	1751	75,60	1184	81,10	2262	71,18	1867	77,76
Lodger	334	8,50	200	8,83	168	7,25	67	4,59	242	7,61	209	8,70
Hostel	839	21,35			215	9,28	19	1,30	450	14,16	3	,12
Compound	144	3,67			118	5,09	2	,14	132	4,15	1	,04
Business Premises	72	1,83	25	1,10	38	1,64	9	,62	75	2,36	30	1,25
White areas	40	1,02	389	17,17	26	1,12	179	12,26	17	,53	291	12,12
Total	3929	100,00	2265	100,00	2316	100,00	1460	100,00	3178	100,00	2401	100,00

TABLE A2 REGRESSION COEFFICIENTS FOR 1975

Variable	--- F U L L S A M P L E ---: 1975/85 COMMON AREAS				: 1975/80/85 COMMON AREAS			
	--- C A S H ---: T O T A L ---		: C A S H ---: T O T A L ---		: C A S H ---: T O T A L ---		: C A S H ---: T O T A L ---	
	Simple	Female	Simple	Female	Simple	Female	Simple	Female
Cape Peninsula	,0666 +	-,0831	,0547 +	-,1356 #	,0678 +	-,0497 #	,0565 +	-,1023 +
Durban	-,0170	-,1566 #	-,0181	-,2247 #	-,0201	-,1194 #	-,0217	-,1902 #
Krugersdorp	-,0610	-,0761	-,0577	-,0155				
Port Elizabeth	-,0639 +	-,2117 #	-,0685 #	-,2069 #	-,0757 #	-,1787 #	-,0800 #	-,1747 #
Pretoria	-,1196 #	,0395	-,1186 #	,0046	-,1229 #	,0594	-,1217 #	,0269
Kempton Park	-,1211 #	-,0062	-,1155 +	-,0309				
Pietermaritzburg	-,1471 #	-,1157 +	-,1511 #	-,1087 +	-,1374 #	-,0752	-,1420 #	-,0733
Nelspruit	-,1699 #	-,0480	-,1489 #	-,0217				
East London	-,2483 #	,0106	-,2411 #	,0181				
Pietersburg	-,3290 #	,0325	-,3373 #	,1070				
Bloemfontein	-,3445 #	-,2044 #	-,3502 #	-,0561	-,3460 #	-,1927 #	-,3509 #	-,0398
Umtata	-,4248 #	,0840	-,4221 #	,0722				
Professional	,3069 #	,7478 #	,3076 #	,6295 #	,2222 #	,8024 #	,2246 #	,6907 #
Managerial	,1334	,1077	,1209	,0087	,2949	-,5127	,2795	-,4933
Skilled	,2772 #	,0074	,2758 #	-,0253	,2886 #	,0293	,2886 #	-,0221
Clerical	,2709 #	,2641 #	,2611 #	,2244 #	,2406 #	,2017 +	,2324 #	,1627 +
Semiskilled	,2232 #	,0389	,2234 #	,0117	,2368 #	,0827 +	,2371 #	,0599
Mining	-,1563 +		-,1334 +		-,2114 #		-,1887 #	
Business Service	-,0593	-,1197	-,0528	-,0956	-,1099 +	,0254	-,1040 +	,0804
Electr.,gas,wat.	,0407		,0285		-,0138		-,0302	
Transpt., Commun.	-,1286 #	,1473	-,1240 #	,1861	-,1262 #		-,1238 #	
Construction	-,0423 +	,0601	-,0355	,0283	-,0269	-,1551	-,0225	-,2326
Trade,Accommod.	-,1228 #	-,1654 #	-,1069 #	-,1380 #	-,1357 #	-,1365 #	-,1234 #	-,1299 #
Community Serv.	-,1880 #	-,3649 #	-,1749 #	-,2380 #	-,1889 #	-,4102 #	-,1777 #	-,2982 #
Agriculture	-,2345		-,2212		-,0946		-,0775	
Std.5/6	,0790 #	,0370	,0779 #	,0046	,0530 #	,0292	,0525 #	-,0030
Std.7/8	,1816 #	,1298 #	,1775 #	,0734 +	,1471 #	,1015 #	,1462 #	,0509
Std.9/10	,4247 #	,0430	,4207 #	-,0166	,3267 #	,0249	,3289 #	-,0278
Diploma	,5233 #	-,0515	,5035 #	-,1184	,4853 #	-,0769	,4685 #	-,1413
Degree	1,1891 #	-,3113	1,1689 #	-,3877 +	1,0601 #	-,2753	1,0396 #	-,3595
Wife of Hh Head	-,0500 +		-,0792 #		-,0566 +		-,0832 #	
Not Head or Wife	-,1674 #	,1394 #	-,1732 #	,0776 +	-,1402 #	,0931 +	-,1479 #	,0177
Single	-,0647 #	,0544	-,0551 +	,0581 +	-,0639 #	,0640 +	-,0549 +	,0708 +
Lodger	-,0590 +	,1247 #	-,0604 +	,0893 +	-,0527	,0901	-,0524	,0939 +
Hostel	-,0893 #		-,0842 #		-,1041 #		-,0993 #	
Compound	-,0321		,0353		-,0344		,0331	
Business Premise	-,3582 #	,2831 #	-,2664 #	,2676 #	-,3469 #	,2949 +	-,2517 #	,1854
White areas	-,8559 #	,7243 #	-,4306 #	,5748 #	-,8648 #	,7171 #	-,4382 #	,5690 #
Working Life	,01136 #	,00989 +	,01102 #	,00582	,01198 #	,00760 +	,01183 #	,00321
Wkg Life squared	-,00026 #	-,00020 +	-,00025 #	-,00015 +	-,00027 #	-,00016 +	-,00026 #	-,00013
Job Duration	,01307 #	,00683	,01244 #	,00974 +	,01324 #	,00668	,01251 #	,00898 +
Job Durn squared	-,00024 #	-,00024	-,00022 #	-,00034 +	-,00029 #	-,00013	-,00026 #	-,00021
Constant	7,0477 #	-,6608 #	7,0596 #	-,5403 #	7,0685 #	-,6084 #	7,0797 #	-,4678 #
N	6194		6194		4770		4770	
R squared	,6933		,6184		,7138		,6401	
F	174,91		128,05		181,19		129,51	

Notes: + - significant at the 10% level; + - significant at the 5% level; # - significant at the 1% level

TABLE A3 REGRESSION COEFFICIENTS FOR 1980

Variable	--- F U L L S A M P L E ---				- 1975/80/85 COMMON AREAS -			
	--- C A S H ---		--- T O T A L ---		--- C A S H ---		--- T O T A L ---	
	Simple	Female	Simple	Female	Simple	Female	Simple	Female
Pretoria	,0116	-,1036 #	,0126	-,0581	,0046	-,1142 #	,0075	-,0667 *
E/W Rand	,0617 +	-,0947 +	,0728 #	-,0876 +				
Vaal Triangle	,0544 *	-,2771 #	,0639 +	-,1964 #				
Durban	-,0752 #	-,0319	-,0686 #	-,0257	-,0795 #	-,0335	-,0712 #	-,0288
Professional	,2510 #	,5420 #	,2405 #	,4639 #	,1783 +	,5683 #	,1790 +	,4892 #
Managerial	,5190 +	,3782	,5298 +	,3128	,6717 *	,3240	,7485 +	,1786
Skilled	,2632 #	,3112 #	,2654 #	,2808 +	,2304 #	,3487 #	,2359 #	,3057 #
Clerical	,1556 #	,1826 #	,1430 #	,1605 #	,1475 #	,2145 #	,1388 #	,1701 +
Semiskilled	,1369 #	,0872 +	,1380 #	,0649 *	,1259 #	,1038 +	,1221 #	,0786 *
Mining	-,0385	,3083	,0959	,1883	,4525 #	,1405	,4749 #	,1811
Business Serv.	-,0328	-,0219	-,0185	-,0270	-,0166	,0098	-,0113	,0174
Electr., gas, wat.	-,0547		-,0730		-,2238		-,2343	
Transport, Commun.	-,0523	-,0328	-,0501	,0029	-,0275	-,0068	-,0271	,0270
Construction	-,0495	,1610	-,0493 *	,1140	-,0459	,2218	-,0409	,1303
Trade, Accommod.	-,1230 #	,0605	-,1094 #	,0703	-,1167 #	,0714	-,1029 #	,0903 *
Community Serv.	-,2240 #	-,2524 #	-,2154 #	-,1779 #	-,1776 #	-,2114 #	-,1695 #	-,1339 #
Agriculture	-,3331 *	,5564	-,3355 +	,5470	-,2291		-,2192	
Std. 5/6	,1028 #	,0514	,1060 #	,0319	,1081 #	,0094	,1048 #	,0178
Std. 7/8	,1966 #	,1197 #	,1905 #	,1145 #	,2148 #	,0903 *	,2039 #	,1045 +
Std. 9/10	,3861 #	,1282 +	,3714 #	,1039 *	,4024 #	,0806	,3837 #	,0698
Diploma	,3957 #	,0127	,4007 #	-,0463	,6466 #	-,1989	,6327 #	-,2121
Degree	1,1318 #	,1871	1,1801 #	,0356	1,1975 #	,0886	1,2333 #	,0419
Wife of Hh Head	-,0317		-,0571 *		-,0367		-,0424	
Not Head or Wife	-,0563 *	-,0078	-,0947 #	,0295	-,0718 *	,0285	-,0874 +	,0286
Single	-,0659 +	,0875 *	-,0349	,0424	-,0506	,0671	-,0424	,0714
Lodger	-,1057 #	-,0615	-,1383 #	,0181	-,1807 #	-,0366	-,1893 #	,0049
Hostel	,0434	-,1762 *	,0495	,0950	,0976 +	-,4520 #	,1167 #	-,2074
Compound	-,0316	,3590	,0189	,2946	,1679 *		,1712 +	
Business Premises	-,1959 #	,0726	-,0422	,2105	-,2530 #	,1587	-,0477	,2239
White areas	-,6781 #	,4682 #	-,2830 #	,5575 #	-,5987 #	,3772 #	-,2380 #	,4936 #
Working Life	,01726 #	-,00529	,01805 #	-,00563	,01864 #	-,00545	,01735 #	-,00515
Wkg Life squared	-,00038 #	,00011	-,00036 #	,00014	-,00040 #	,00009	-,00038 #	,00011
Job Duration	,01734 #	,01308 +	,01683 #	,01270 +	,01292 #	,01299 +	,01288 #	,01017 *
Job Durm squared	-,00034 #	-,00045 +	-,00033 #	-,00041 +	-,00018 #	-,00042	-,00018	-,00035
Constant	7,4416 #	-,4896 #	7,4696 #	-,4743 #	7,4200 #	-,5008 #	7,4504 #	-,5086 #
N	3776		3776		2416		2416	
R squared	,6286		,5579		,6097		,5531	
F	96,35		72,10		82,86		50,01	

Notes: * - significant at the 10% level;
 + - significant at the 5% level;
 # - significant at the 1% level

TABLE A4 REGRESSION COEFFICIENTS FOR 1985

Variable	--- F U L L S A M P L E ---				1975/85 COMMON AREAS				1975/80/85 COMMON AREAS			
	--- C A S H ---		--- T O T A L ---		--- C A S H ---		--- T O T A L ---		--- C A S H ---		--- T O T A L ---	
	Simple	Female	Simple	Female	Simple	Female	Simple	Female	Simple	Female	Simple	Female
Pretoria	-.0192	-.0352	-.0247	.0018	-.0230	-.0345	-.0294	.0024	-.0262	-.0390	-.0322	.0074
EW Rand	-.0223	-.0736 *	-.0294	-.0460								
Cape Peninsula	-.0455	-.0831	-.0586 *	-.0372	-.0554	-.0820	-.0643 +	-.0420				
Vaal Triangle	-.0250	-.3559 #	-.0317	-.3386 #								
Port Elizabeth	-.1753 #	-.0704	-.1710 #	-.0218	-.1767 #	-.0762	-.1740 #	-.0231				
Durban	-.1424 #	-.0827 *	-.1404 #	-.0730 *	-.1482 #	-.0757 *	-.1468 #	-.0638	-.1468 #	-.0621	-.1463 #	-.0501
Pietermaritzburg	-.2241 #	-.0746	-.1979 #	-.0239	-.2289 #	-.0774	-.2040 #	-.0237				
OFS Goldfields	-.1835 #	-.2363 #	-.1743 #	-.1619 #								
Klerksdorp	-.1880 #	-.2848 #	-.1754 #	-.2237 #								
Kimberley	-.2253 #	-.2911 #	-.2358 #	-.1456 #								
Bloemfontein	-.2691 #	-.2395 #	-.2576 #	-.1587 #	-.2715 #	-.2549 #	-.2622 #	-.1702 #				
Professional	.6026 #	.3986 #	.5994 #	.3273 #	.5749 #	.4110 #	.5707 #	.3429 #	.6328 #	.3046 #	.6223 #	.2655 +
Managerial	.8448 #	-.4185	.8853 #	-.5592	.8537 #		.8784 #		1.0191 #		1.0186 #	
Skilled	.5975 #	-.0767	.5877 #	-.0820	.5652 #	-.1232	.5610 #	-.1152	.4850 #	-.0765	.4842 #	-.0802
Clerical	.3950 #	.1257 #	.3729 #	.1191 #	.3596 #	.1738 #	.3387 #	.1598 #	.2694 #	.2644 #	.2601 #	.2410 #
Semiskilled	.3619 #	-.0560 *	.3526 #	-.0775 +	.3290 #	.0044	.3195 #	-.0156	.2874 #	-.0142	.2841 #	-.0342
Mining	.0966 #	-.0238	.1786 #	-.0965	.0627	.3050	.0760	.2161	.0481	.3193	.0610	.2352
Business Service	.1309 #	-.1138	.1345 #	-.1036	.1413 #	-.0670	.1424 #	-.0478	.1513 #	-.0498	.1536 #	-.0337
Electr., gas, water	.0250	-.0073	.0587	-.2278	-.0079		.0292		.1288		.1902	
Transport, Commun	.0417	.0402	.0454 *	.0190	.0492	-.0965	.0551 *	-.0882	.0179	-.0401	.0234	-.0516
Construction	-.0026	.0193	-.0040	-.0326	.0252	.0415	.0308	.0594	.0863	.0392	.0897	.0470
Trade, Accommodat	-.0442 +	.0302	-.0348 *	.0321	-.0373	.0488	-.0224	.0523	-.0407	.0840	-.0240	.0786
Community Servic	-.0911 #	-.2844 #	-.0766 #	-.2099 #	-.1004 #	-.1908 #	-.0835 #	-.1174 #	-.0966 #	-.1390 +	-.0775 +	-.0893
Agriculture	-.3046	.0869	-.1655	.1168	-.3087	-.4458	-.1896	-.2124	@	-.2972	@	-.3307
Std. 5/6	.0453 +	.0585 +	.0487 #	.0346	.0660 #	.0013	.0687 #	-.0245	.1319 #	-.0599	.1283 #	-.0702
Std. 7/8	.1340 #	.0940 #	.1388 #	.0392	.1696 #	.0017	.1725 #	-.0470	.2688 #	-.0937	.2633 #	-.1084 *
Std. 9/10	.3435 #	.0806 *	.3392 #	.0076	.3960 #	-.0203	.3917 #	-.0925	.4732 #	-.0918	.4694 #	-.1293 *
Diploma	.4775 #	-.0238	.4544 #	-.1026	.5225 #	-.1472	.4976 #	-.2257 +	.5256 #	-.2110	.5214 #	-.2748 *
Degree	.8443 #	.1939	.8329 #	.1196	.8757 #	.1063	.8681 #	.0236	.9085 #	-.1041	.9286 #	-.1871
Wife of Hh Head	-.0381	@	-.0597 +		-.0560		-.0760 +		-.0029		-.0145	
Not Head of Wife	-.1315 #	.0104	-.1370 #	.0145	-.1325 #	-.0115	-.1392 #	.0060	-.1411 #	.0644	-.1530 #	.0863
Single	-.0630 #	.0918 #	-.0687 #	.0854 #	-.0187	.0703 *	-.0189	.0577	-.0728 *	.1324 +	-.0732 +	.1155 +
Lodger	-.0224	.0567	-.0342	.0871 *	-.0266	.0826	-.0381	.0955	-.0572	.0845	-.0662	.0849
Hostel	-.0314	.0774	-.0233	.0943	.0316	.0078	.0248	.0364	.0253	.0605	.0221	.0728
Compound	-.0529	.0494	-.0049	.0610	-.0918	.0653	-.0729	.1032	-.1199	.1545	-.1526	.2184
Business Premise	-.1779 #	.0598	-.0488	.1104	-.1538 #	-.0309	-.0183	.0081	-.1591 #	.0204	-.0253	.0584
White areas	-.6248 #	.2985 #	-.2176 +	.3686 #	-.6149 #	.2216 *	-.2215 +	.2918 +	-.5529 #	.1578	-.1897	.2699 +
Working Life	.01377 #	.00554	.01249 #	.00354	.01327 #	.00706	.01292 #	.00546	.01322 #	.00826	.01257 #	.00853
Wkg Life squared	-.00030 #	-.00016 *	-.00027 #	-.00010	-.00027 #	-.00020 *	-.00026 #	-.00016	-.00027 #	-.00017	-.00026 #	-.00017
Job Duration	.02156 #	.00547	.02036 #	.00312	.02310 #	.00107	.02160 #	.00097	.02001 #	.00293	.01882 #	.00338
Job Durn squared	-.00042 #	-.00021	-.00038 #	-.00014	-.00045 #	-.00005	-.00041 #	.00001	-.00030 #	-.00007	-.00027	-.00006
Constant	7.9657 #	-.3396 #	8.0145 #	-.2888 #	7.9298 #	-.3240 #	7.9692 #	-.2768 #	7.9397 #	-.3993 #	7.9796 #	-.3824 #
N	5579		5579		3281		3281		1877		1877	
R squared	.7019		.6483		.6726		.6110		.6656		.5968	
F	161.16		126.40		97.28		74.59		62.22		46.51	

Notes: * - significant at the 10% level; + - significant at the 5% level; # - significant at the 1% level

TABLE A5 COEFFICIENTS FOR REGRESSIONS COMBINING 1975 AND 1980

	C A S H				T O T A L			
	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female
Pretoria	-0,1246 #	0,0379	0,02584 #	-0,03043 +	-0,1244 #	0,0074	0,02637 #	-0,01481
Durban	-0,0291	-0,1040 +	-0,01008	0,01410	-0,0321	-0,1793 #	-0,00783	0,03049 +
Professional	0,1956 +	0,6972 #	-0,00345	-0,02579	0,1802 +	0,6151 #	-0,00023	-0,02517
Managerial	0,2021	-0,4619	0,09392	0,15718	0,1851	-0,4542	0,11266	0,12657
Skilled	0,1989 #	0,1652	0,00630	0,03670	0,1962 #	0,0869	0,00794	0,04377
Clerical	0,2141 #	0,4145 #	-0,01331	-0,04000	0,2014 #	0,3403 #	-0,01251	-0,03566
Semiskilled	0,2277 #	0,1500 +	-0,02037 #	-0,00923	0,2296 #	0,1008 #	-0,02150 #	0,00444
Mining	-0,2744 +	@	0,14537 #	0,02811	-0,2233 +	@	0,13963 #	0,03621
Business Services	-0,1166	-0,1116	0,02000	0,02428	-0,1095	-0,0944	0,01964	0,02235
Electr., gas, water	-0,0120		-0,04236		-0,0321		-0,04044	
Transport, Commun.	-0,1513 #	@	0,02477 +	-0,00136	-0,1384 #	@	0,02226 +	0,00541
Construction	0,0196	-0,0002	-0,01309	0,04435	0,0209	-0,0829	-0,01236	0,04265
Trade, Accommodation	-0,1470 #	-0,1113 *	0,00605	0,03653 +	-0,1300 #	-0,0875	0,00542	0,03557 +
Community Services	-0,2084 #	-0,3255 #	0,00618	0,02283	-0,1951 #	-0,2269 #	0,00513	0,01861
Agriculture	-0,3783		0,02986		-0,3315		0,02246	
Std. 5/6	0,0380	0,0005	0,01402 *	0,00177	0,0354	-0,0020	0,01307 *	0,00397
Std. 7/8	0,1700 #	0,0385	0,00896	0,01034	0,1657 #	0,0468	0,00765	0,01152
Std. 9/10	0,3632 #	0,0054	0,00783	0,01503	0,3680 #	0,0041	0,00314	0,01315
Diploma	0,5159 #	-0,1101	0,02613	-0,01736	0,5060 #	-0,1095	0,02533	-0,02052
Degree	0,8915 #	-0,3859	0,06119	0,09489	0,8783 #	-0,4547	0,07100	0,09932
Wife of Hh Head	-0,0860 *		0,00987		-0,1092 +		0,01336	
Not Head or Wife	-0,1279 #	0,0813	0,01121	-0,01056	-0,1446 #	0,0184	0,01144	0,00203
Single	-0,1209 #	0,1408 +	0,01405	-0,01475	-0,1023 #	0,1654 #	0,01198	-0,01881
Lodger	-0,0479	0,0003	-0,02656 +	-0,00738	-0,0513	0,0248	-0,02761 +	-0,00399
Hostel	-0,0868 #	@	0,03686 #	-0,09040 #	-0,0853 #	@	0,04040 #	-0,04148
Compound	-0,0278		0,03910 *		0,0629		0,02166	
Business Premises	-0,3602 #	0,2794	0,02044	-0,02452	-0,2690 #	0,1704	0,04427 +	0,01071
White areas	-0,8542 #	0,5508 #	0,05109 +	-0,03472	-0,4343 #	0,4239 #	0,03926 *	0,01393
Working Life	0,01283 #	-0,00413	0,00116	-0,00026	0,01231 #	-0,00619	0,00101	0,00021
Wkg Life squared	-0,00029 #	0,00009	-0,00002	0,00000	-0,00028 #	0,00010	-0,00002	0,00000
Job Duration	0,01400 #	0,00645	-0,00022	0,00131	0,01352 #	0,00617	-0,00013	0,00080
Job Durn squared	-0,00035 #	0,00007	0,00003	-0,00010	-0,00033 #	0,00005	0,00003	-0,00006
Constant	7,0975 #	-0,5204 #	0,06451 #	0,00392	7,1105 #	-0,4313 #	0,0680 #	-0,0155
N	4729				4729			
R squared	0,6932				0,6536			
F	90,04				75,32			

Notes: * - significant at the 10% level
 + - significant at the 5% level
 # - significant at the 1% level
 @ - variable eliminated because of near perfect collinearity

TABLE A6 COEFFICIENTS FOR REGRESSIONS COMBINING 1980 AND 1985

Variable	C A S H				T O T A L			
	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female	- Base Terms - Simple	- Time Terms - Female
Pretoria	0,0046	-0,1142 #	-0,00617	0,01525	0,0075	-0,0667 *	-0,00734	0,01482
Durban	-0,0795 #	-0,0335	-0,01347 *	-0,00671	-0,0712 #	-0,0268	-0,01502 +	-0,00466
Professional	0,1783 +	0,5683 #	0,09089 #	-0,05275 *	0,1790 +	0,4892 #	0,08856 #	-0,04474
Managerial	0,6717 *	0,3240	0,06948		0,7485 +	0,1786	0,05403	
Skilled	0,2304 #	0,3487 #	0,05092 #	-0,08503 +	0,2359 #	0,3057 #	0,04366 #	-0,07719 #
Clerical	0,1475 #	0,2145 #	0,02438 *	0,00999	0,1388 #	0,1701 +	0,02425 +	0,01419
Semiskilled	0,1259 #	0,1038 +	0,03231 #	-0,02360 *	0,1221 #	0,0786 *	0,03238 #	-0,02256
Mining	0,4525 #	0,1405	-0,08088 +	0,03395	0,4749 #	0,1811	-0,08277 +	0,01003
Business Services	-0,0166	0,0098	0,03358 +	-0,01192	-0,0113	0,0174	0,03298 +	-0,01020
Electr.,gas,water	-0,2238		0,07052		-0,2343		0,08490	
Transport,Commun.	-0,0275	-0,0068	0,00908	-0,00667	-0,0271	0,0270	0,01011	-0,01574
Construction	-0,0459	0,2216	0,02643 +	-0,03646	-0,0409	0,1303	0,02612 *	-0,01665
Trade,Accommodation	-0,1167 #	0,0714	0,01521 *	0,00253	-0,1029 #	0,0903 *	0,01578 *	-0,00234
Community Services	-0,1776 #	-0,2114 #	0,01620 *	0,01467	-0,1695 #	-0,1339 #	0,01839 +	0,00892
Agriculture	-0,2291	@	@	-0,01363	-0,2192	@	@	-0,02230
Std. 5/6	0,1081 #	0,0094	0,00476	-0,01387	0,1048 #	0,0178	0,00470	-0,01760
Std. 7/8	0,2148 #	0,0903 *	0,01040	-0,03679 +	0,2039 #	0,1045 +	0,01187	-0,04258 #
Std. 9/10	0,4024 #	0,0806	0,01416	-0,03447	0,3837 #	0,0698	0,01713	-0,03983 +
Diploma	0,6466 #	-0,1969	-0,02421	-0,00281	0,6327 #	-0,2121	-0,02226	-0,01254
Degree	1,1975 #	0,0886	-0,05779	-0,03854	1,2333 #	0,0419	-0,06093	-0,04579
Wife of Hh Head	-0,0367		0,00676		-0,0424		0,00558	
Not Head or Wife	-0,0718 *	0,0285	-0,01387	0,00717	-0,0874 +	0,0286	-0,01311	0,01155
Single	-0,0506	0,0671	-0,00444	0,01307	-0,0424	0,0714	-0,00615	0,00883
Lodger	-0,1807 #	-0,0366	0,02469 *	0,02422	-0,1893 #	0,0049	0,02462 *	0,01599
Hostel	0,0976 +	-0,4520 #	-0,01445	0,10250 *	0,1167 #	-0,2074	-0,01892 *	0,05605
Compound	0,1679 *	@	-0,05758	0,03090	0,1712 +	@	-0,06477	0,04368
Business Premises	-0,2580 #	0,1567	0,01978	-0,02727	-0,0477	0,2239	0,00448	-0,03311
White areas	-0,5987 #	0,3772 #	0,00917	-0,04388	-0,2380 #	0,4936 #	0,00965	-0,04474
Working Life	0,01864 #	-0,00545	-0,00108	0,00274	0,01735 #	-0,00515	-0,00096	0,00274
Wkg Life squared	-0,00040 #	0,00009	0,00003	-0,00005	-0,00038 #	0,00011	0,00002	-0,00006 *
Job Duration	0,01292 #	0,01299 +	0,00142	-0,00318	0,01288 #	0,01017	0,00119	-0,00271
Job Durn squared	-0,00018	-0,00042	-0,00002	0,00007	-0,00018	-0,00035	-0,00002	0,00006
Constant	7,4200 #	-0,5008 #	0,10394 #	0,02030	7,4504 #	-0,5086 #	0,1059 #	0,0252
N	4293				4293			
R squared	0,7394				0,7190			
F	99,99				90,30			

Notes: * - significant at the 10% level
+ - significant at the 5% level
- significant at the 1% level
@ - variable eliminated because of near perfect collinearity

TABLE A7 COEFFICIENTS FOR REGRESSIONS COMBINING 1975 AND 1985

Variable	C A S H				T O T A L			
	Base Terms - Simple	-I- Female	Time Terms - Simple	Female	Base Terms - Simple	-I- Female	Time Terms - Simple	Female
Pretoria	-0,1229 #	0,0594	0,00998 #	-0,00939	-0,1217 #	0,0269	0,00924 +	-0,00245
Cape Peninsula	0,0678 +	-0,0497	-0,01232 #	-0,00322	0,0565 +	-0,1023 +	-0,01207 #	0,00603
Port Elizabeth	-0,0757 #	-0,1787 #	-0,01009 +	0,01025	-0,0800 #	-0,1747 #	-0,00940 +	0,01516 +
Durban	-0,0201	-0,1194 #	-0,01281 #	0,00437	-0,0217	-0,1902 #	-0,01251 #	0,01264 +
Pietermaritzburg	-0,1374 #	-0,0752	-0,00914 +	-0,00022	-0,1420 #	-0,0733	-0,00620	0,00496
Bloemfontein	-0,3460 #	-0,1927 #	0,00745	-0,00622	-0,3509 #	-0,0398	0,00887 +	-0,01304 +
Professional	0,2222 #	0,8024 #	0,03527 #	-0,03914 #	0,2246 #	0,6907 #	0,03461 #	-0,03477 #
Managerial	0,2949	-0,5127	0,05588 +		0,2795	-0,4933	0,05990 #	
Skilled	0,2886 #	0,0293	0,02766 #	-0,01525	0,2886 #	-0,0221	0,02724 #	-0,00931
Clerical	0,2406 #	0,2017 +	0,01191 +	-0,00279	0,2324 #	0,1627 +	0,01063 +	-0,00030
Semiskilled	0,2368 #	0,0827 +	0,00922 #	-0,00783	0,2371 #	0,0599	0,00824 #	-0,00755
Mining	-0,2114 #		0,02742 +	0,03050	-0,1887 #		0,02647 +	0,02161
Business Services	-0,1099 +	0,0254	0,02512 #	-0,00924	-0,1040 +	0,0804	0,02464 #	-0,01282
Electr. gas, water	-0,0138		0,00059		-0,0302		0,00594	
Transport, Commun.	-0,1262 #		0,01754 #	-0,00960	-0,1238 #		0,01790 #	-0,00882
Construction	-0,0269	-0,1551	0,00521	0,01966	-0,0225	-0,2326	0,00533	0,02919
Trade, Accommodation	-0,1357 #	-0,1365 #	0,00984 #	0,01853 #	-0,1234 #	-0,1299 #	0,01010 #	0,01821 #
Community Services	-0,1889 #	-0,4102 #	0,00885 #	0,02195 #	-0,1777 #	-0,2982 #	0,00942 #	0,01808 #
Agriculture	-0,0946		-0,02140	-0,04458	-0,0775		-0,00921	-0,02123
Std. 5/6	0,0530 #	0,0292	0,00130	-0,00280	0,0525 #	-0,0030	0,00162	-0,00215
Std. 7/8	0,1471 #	0,1015 +	0,00225	-0,00998 +	0,1462 #	0,0509	0,00263	-0,00979 +
Std. 9/10	0,3267 #	0,0249	0,00693	-0,00452	0,3289 #	-0,0278	0,00628	-0,00647
Diploma	0,4853 #	-0,0769	0,00372	-0,00703	0,4685 #	-0,1413	0,00292	-0,00843
Degree	1,0601 #	-0,2753	-0,01844	0,03816	1,0396 #	-0,3595	-0,01715	0,03830
Wife of Hh Head	-0,0566 +		0,00006		-0,0832 #		0,00072	
Not Head or Wife	-0,1402 #	0,0931 +	0,00076	-0,01046	-0,1479 #	0,0177	0,00087	-0,00117
Single	-0,0639 #	0,0840 +	0,00452	0,00063	-0,0549 +	0,0708 +	0,00360	-0,00131
Lodger	-0,0527	0,0901	0,00262	-0,00075	-0,0524	0,0939 +	0,00143	0,00017
Hostel	-0,1041 #		0,01357 #	0,00078	-0,0993 #		0,01241 #	0,00364
Compound	-0,0344		-0,00574	0,00653	0,0331		-0,01060	0,01032
Business Premises	-0,3469 #	0,2949 +	0,01931 #	-0,03258	-0,2517 #	0,1854	0,02334 #	-0,01773
White areas	-0,8648 #	0,7171 #	0,02499 +	-0,04955 #	-0,4382 #	0,5690 #	0,02168 +	-0,02772 +
Working Life	0,01198 #	0,00760 +	0,00013	-0,00005	0,01183 #	0,00321	0,00011	0,00022
Wkg Life squared	-0,00027 #	-0,00016 +	0,00000	0,00000	-0,00026 #	-0,00013	0,00000	0,00000
Job Duration	0,01324 #	0,00668	0,00099 +	-0,00056	0,01251 #	0,00898 +	0,00091 +	-0,00100
Job Durn squared	-0,00029 #	-0,00013	-0,00002	0,00001	-0,00026 #	-0,00021	-0,00001	0,00002
Constant	7,0685 #	-0,6084 #	0,08613 #	0,02844 +	7,0797 #	-0,4678 #	0,0890 #	0,0191
N	8051				8051			
R squared	0,8391				0,8277			
F	307,47				283,17			

Notes: * - significant at the 10% level
 + - significant at the 5% level
 # - significant at the 1% level
 @ - variable eliminated because of near perfect collinearity

TABLE A8 SUMMARY OF 1975, 1980 AND 1985 REGRESSIONS USING BASIC CASH WAGES (PERCENTAGE EFFECTS)

Variable	1975			1980			1985		
	Male (1)	Female (2)	Female (3)	Male (1)	Female (2)	Female (3)	Male (1)	Female (2)	Female (3)
Pretoria	-11,71	-45,51	-8,30	0,47	-45,88	-10,38	-2,59	-37,09	-6,22
Durban	-2,87	-47,98	-12,46	-7,84	-45,87	-10,68	-13,66	-45,67	-18,85
Professional	21,60 +	45,13 +	144,20 +	19,52 +	27,87	110,99	88,28 +	71,27	155,32
Managerial	22,40 #	-54,16 #	-22,87 #	95,76 #	64,05 #	170,68 #	177,08 #		
Skilled	22,01 +	-14,47 #	43,92 #	25,91 +	8,15 +	78,44 +	62,42	0,93 +	50,46 +
Clerical	23,87	11,42 +	87,49 +	15,90	-12,96 +	43,62 +	30,92	14,40 +	70,55 +
Semiskilled	25,57	-13,30 +	45,89 +	13,41	-23,75	25,82	33,29	-11,85	31,41
Mining	-23,99 +			57,22 #	9,66 #	80,94 #	4,92 +	-4,01 #	43,10 #
Business Services	-11,00 +	-52,69 #	-20,40 #	-1,64 +	-39,80 +	-0,67 +	16,34 +	-25,75 +	10,69 +
Electr.,gas,water	-1,19 #			-20,05 #			13,75 #		
Transport,Commun.	-14,04			-2,71 +	-41,44 #	-3,37 #	1,81	-34,39 #	-2,20 #
Construction	1,98	-39,41 #	1,96 #	-4,49	-27,75 #	19,20 #	9,01 +	-23,95 #	13,37 #
Trade,Accommodation	-13,67	-54,10	-22,76	-11,01	-42,08	-4,43	-3,99	-29,95	4,43
Community Services	-18,81	-65,16	-41,37	-16,27	-58,92	-32,23	-9,21	-46,95	-20,91
Agriculture	-31,50 #			-20,47 #				-50,17 #	-25,71 #
Std.5/6	3,87	-38,24	3,92	11,41	-31,84	12,46	14,10	-27,92	7,46
Std.7/8	18,53	-26,79	23,18	23,96	-17,78	35,67	30,57	-20,24	18,90
Std.9/10	43,80 +	-14,08 +	44,58 +	49,54	-1,76 +	62,09 +	80,51	-1,77	46,44
Diploma	67,52 +	-10,83 +	50,05 +	90,90 #	-4,98 +	56,77 +	69,14 +	-8,12 +	36,97 +
Degree	143,88 #	-1,46 #	85,81 #	231,17 #	119,31 #	261,85 #	148,06 +	49,95 #	123,54 #
Wife of Hh Head		-45,47	-8,24		-41,58	-3,60		-33,11	-0,29
Not Head or Wife	-12,00	-43,27	-4,55	-6,93	-41,96	-4,23	-13,16	-37,87	-7,39
Single	-11,39	-39,37	2,01	-4,94	-38,39	1,66	-7,03	-28,80	6,14
Lodger	-4,68	-43,33 +	-4,64 +	-16,53	-51,23 +	-19,53 +	-5,56 +	-31,06 +	2,77 +
Hostel	-8,31			10,25	-57,48 #	-29,84 #	2,56	-26,91 #	8,96 #
Compound	-2,72 +			18,29 +			-11,30 #	-30,56 #	3,52 #
Business Premises	-30,24 +	-45,19 #	-7,76 #	-22,74 +	-45,23 #	-9,63 #	-14,71 +	-41,61 +	-12,95 +
White areas	-57,44 +	-56,12	-26,16	-45,05 +	-51,44	-19,87	-42,47 +	-54,81	-32,64
Working Life	1,28	0,87	0,87	1,86	1,32	1,32	1,32	2,15	2,15
Wkg Life squared	-0,03	-0,02	-0,02	-0,04	-0,03	-0,03	-0,03	-0,04	-0,04
Job Duration	1,40	2,04	2,04	1,29	2,59	2,59	2,00	1,71	1,71
Job Durn squared	-0,04	-0,03	-0,03	-0,02	-0,06	-0,06	-0,03	-0,04	-0,04
Constant	0,00	-40,57	0,00	0,00	-39,39	0,00	0,00	-32,92	0,00

Notes: For the dummy (or non-continuous) variables, the effects are given:
(1) relative to a male worker in the omitted category
(2) for a female worker, otherwise in the omitted set of categories, relative to a male in the omitted set
(3) relative to a female worker in the omitted category
indicates less than 10 members of the category in question
+ indicates less than 100 members of the category in question

TABLE A9 SUMMARY OF 1975, 1980 AND 1985 REGRESSIONS USING TOTAL BASIC WAGES (PERCENTAGE EFFECTS)

Variable	1975			1980			1985		
	Male (1)	Female (2)	Female (3)	Male (1)	Female (2)	Female (3)	Male (1)	Female (2)	Female (3)
Pretoria	-11,70	-42,21	-11,05	0,75	-43,32	-5,75	-3,17	-33,45	-2,45
Durban	-3,16	-47,41	-19,05	-6,88	-45,48	-9,34	-13,61	-43,95	-17,84
Professional	19,74 +	43,90 +	121,49 +	19,60 +	17,31	95,07	86,32 +	65,76	142,98
Managerial	20,34 #	-50,36 #	-23,59 #	111,37 #	51,97 #	152,71 #	176,93 #	88,93	
Skilled	21,68 +	-13,78 #	32,72 #	26,60 +	3,36 +	71,87 +	62,28	2,18 +	49,77 +
Clerical	22,31	12,57 +	73,27 +	14,89	-18,10 +	36,19 +	29,71	12,60 +	85,06 +
Semiskilled	25,81	-9,59 +	39,16 +	12,99	-26,49	22,23	32,85	-12,41	28,39
Mining	-20,01 +	-48,03		60,78 #	15,88 #	92,69 #	6,29 +	-8,26 #	34,47 #
Business Services	-10,37 +	-47,02 #	-18,44 #	-1,12 +	-39,50 +	0,61 +	16,60 +	-23,08 +	12,75 +
Electr., gas, water	-3,16 #			-20,89 #			20,95 #		
Transport, Commun.	-12,93	-43,43		-2,68 +	-39,87 #	-0,01 #	2,37	-33,68 #	-2,78 #
Construction	2,11	-38,94 #	-6,02 #	-4,01	-34,24 #	9,35 #	9,38 +	-21,78 #	14,65 #
Trade, Accommodation	-12,19	-47,73	-19,55	-9,78	-40,62	-1,25	-2,37	-27,95	5,61
Community Services	-17,73	-57,40	-34,43	-15,59	-55,60	-26,17	-7,46	-42,26	-15,37
Agriculture	-28,21 #	-53,36		-19,68 #	-51,70			-50,89 #	-28,16 #
Std. 5/6	3,61	-32,83	3,39	11,04	-32,02	13,04	13,69	-27,70	5,98
Std. 7/8	18,02	-19,65	23,68	22,62	-18,14	36,12	30,12	-20,35	18,75
Std. 9/10	44,49 +	-5,75 +	45,08 +	46,77	-5,35 +	57,39 +	59,90	-4,15	40,50
Diploma	85,87 +	-3,42 +	48,66 +	88,26 #	-8,42 +	52,29 +	68,44 +	-12,70 +	27,97 +
Degree	140,68 #	-0,77 #	52,74 #	243,25 #	115,24 #	257,92 #	153,10 +	43,20 #	109,91 #
Wife of Hb Head		-41,75	-10,34		-42,36	-4,15		-32,76	-1,43
Not Head or Wife	-13,46	-42,74	-11,86	-8,37	-43,30	-5,72	-14,18	-36,18	-6,45
Single	-9,73	-30,80	6,51	-4,15	-38,10	2,94	-7,06	-28,83	4,33
Lodger	-5,00	-36,73 +	-2,61 +	-17,25	-49,99 +	-16,84 +	-6,41 +	-30,50 +	1,88 +
Hostel	-8,18	-40,35		12,37	-45,08 #	-8,68 #	2,23	-24,99 #	9,95 #
Compound	6,49 +	-30,81		18,68 +	-28,63		-14,15 #	-27,14 #	6,80 #
Business Premises	-23,59 +	-41,14 #	-9,39 #	-4,66 +	-28,28 #	19,27 #	-2,50 +	-29,49 +	3,36 +
White areas	-35,22 +	-35,70	-1,03	-21,18 +	-22,35	29,13	-17,28 +	-26,08	8,35
Working Life	1,23	0,61	0,61	1,74	1,22	1,22	1,26	2,11	2,11
Wkg Life squared	-0,03	-0,02	-0,02	-0,04	-0,03	-0,03	-0,03	-0,04	-0,04
Job Duration	1,35	1,97	1,97	1,29	2,31	2,31	1,88	1,54	1,54
Job Durn squared	-0,03	-0,03	-0,03	-0,02	-0,05	-0,05	-0,03	-0,03	-0,03
Constant	0,00	-35,03	0,00	0,00	-39,86	0,00	0,00	-31,78	0,00

Notes: For the dummy (or non-continuous) variables, the effects are given:
(1) relative to a male worker in the omitted category
(2) for a female worker, otherwise in the omitted set of categories,
relative to a male in the omitted set
(3) relative to a female worker in the omitted category
indicates less than 10 members of the category in question
+ indicates less than 100 members of the category in question

TABLE A10 SUMMARY OF 1975 AND 1985 REGRESSIONS USING BASIC CASH WAGES (PERCENTAGE EFFECTS)

Variable	--- 1975 EFFECT ---			- RATE OF CHANGE -		--- 1985 EFFECT ---		
	Male (1)	Female (2)	Female (3)	Male % p.a.	Female % p.a.	Male (1)	Female (2)	Female (3)
Pretoria	-11,56	-48,92	-6,15	-2,30	-0,39	-2,28	-31,72	-5,59
Cape Peninsula	7,02	-44,58	1,82	-4,53	-2,00	-5,39	-36,96	-12,84
Port Elizabeth	-7,29	-57,80	-22,46	-4,30	-0,43	-16,19	-43,83	-22,34
Urban	-1,99	-52,86	-13,01	-4,58	-1,29	-13,77	-42,18	-20,06
Pietermaritzburg	-12,84	-56,00	-19,15	-4,21	-1,39	-20,46	-46,75	-26,38
Bloemfontein	-29,25	-68,24	-41,65	-2,55	-0,33	-23,78	-57,28	-40,93
Professional	24,88 †	51,61	178,58	0,23 †	-0,84	77,69 †	93,84	168,00
Managerial	34,29 #	-56,23 #	-19,57 #	2,29 #		134,82 †		
Skilled	33,45	-25,21 †	37,43 †	-0,53	0,79 †	75,98	12,54 †	55,59 †
Clerical	27,19	-15,31 †	55,61 †	-2,10	0,46 †	43,28	23,30	70,47
Semiskilled	26,72	-25,09	37,64	-2,37	-0,31	38,95	0,84	39,56
Mining	-19,05 †			-0,55 †		6,47 †	4,47 #	44,44 #
Business Services	-10,41 †	-49,99	-8,11	-0,78 †	1,14 #	15,17 †	-22,10 †	7,71 †
Electr., gas, water	-1,37 #			-3,24 #		-0,78 #		
Transport, Commun.	-11,85			-1,54		5,05	-31,01 #	-4,62 #
Construction	-2,65	-54,63 #	-16,64 #	-2,77	2,04 #	2,55	-22,69 #	6,89 #
Trade, Accommodation	-12,69	-58,54	-23,83	-2,31	2,39	-3,67	-26,83	1,16
Community Services	-17,21	-70,11	-45,07	-2,41	2,63	-9,55	-45,94	-25,26
Agriculture	-9,03 #			-5,43 #		-26,56 #	-65,99 #	-52,97 #
Std. 5/6	5,44	-40,91	8,57	-3,16	-0,60	6,82	-22,64	6,96
Std. 7/8	15,85	-30,22	28,22	-3,07	-1,22	18,48	-14,16	18,88
Std. 9/10	38,64	-22,64	42,14	-2,60	-0,21	48,58	5,31	45,61
Diploma	62,46 †	-18,13 †	50,43 †	-2,92	-0,78	68,62 †	5,27 †	45,55 †
Degree	188,67 #	19,30 #	119,20 #	-5,14	1,52	140,06 †	93,11 †	166,99 †
Wife of Hh Head		-48,57	-5,50		-0,44		-31,61	-5,45
Not Head or Wife	-13,08	-48,08	-4,60	-3,22	-1,42	-12,41	-37,37	-13,41
Single	-6,19	-45,57	0,01	-2,84	0,06	-1,86	-23,85	5,29
Lodger	-5,14	-43,50	3,81	-3,03	-0,26	-2,62	-23,50	5,76
Hostel	-9,88			-1,94		3,21	-24,76 #	4,02 #
Compound	-3,38			-3,87		-8,77 †	-29,56 #	-2,61 #
Business Premises	-29,31 †	-48,33 #	-5,06 #	-1,36 †	-1,78 #	-14,25 †	-39,87 †	-15,87 †
White areas	-57,88 †	-53,05	-13,73	-0,80 †	-2,91	-45,93 †	-51,19	-32,52
Working Life	1,20	1,96	1,96	-3,28	-0,44	1,33	2,03	2,03
Wkg Life squared	-0,03	-0,04	-0,04	-3,29	-0,45	-0,03	-0,05	-0,05
Job Duration	1,32	1,99	1,99	-3,20	-0,41	2,31	2,42	2,42
Job Durn squared	-0,03	-0,04	-0,04	-3,30	-0,45	-0,05	-0,05	-0,05
Omitted Categories	0,00	-45,58	0,00	-3,29	-0,45	0,00	-27,67	0,00

Notes: For the dummy (or non-continuous) variables, the 1975 and 1985 effects are given:
(1) relative to a male worker in the omitted category
(2) female worker, otherwise in the omitted set of categories, relative to a male in this set
(3) relative to a female worker in the omitted category but otherwise in the omitted categories
indicates less than 10 members of the category in question in 1975 or 1985
† indicates less than 100 members of the category in question in 1975 or 1985

TABLE A11 SUMMARY OF 1975 AND 1985 REGRESSIONS USING TOTAL BASIC WAGES (PERCENTAGE EFFECTS)

Variable	--- 1975 EFFECT ---			- RATE OF CHANGE -		--- 1985 EFFECT ---		
	Male (1)	Female (2)	Female (3)	Male % p.a.	Female % p.a.	Male (1)	Female (2)	Female (3)
Pretoria	-11,46	-43,03	-9,05	-2,09	-0,42	-2,89	-26,19	-2,66
Cape Peninsula	5,81	-40,17	-4,48	-4,22	-1,71	-6,22	-31,82	-10,08
Port Elizabeth	-7,88	-51,44	-22,48	-3,95	-0,53	-15,97	-37,74	-17,89
Durban	-2,15	-49,32	-19,09	-4,26	-1,09	-13,65	-38,57	-18,99
Pietermaritzburg	-13,24	-49,49	-19,37	-3,63	-1,23	-18,46	-39,62	-20,36
Bloemfontein	-29,60	-57,62	-32,34	-2,13	-1,52	-23,07	-50,90	-35,11
Professional	25,18 †	56,44	149,74	0,45 †	-1,12	76,95 †	89,05	149,33
Managerial	32,24 #	-49,42 #	-19,25 #	2,98 #		140,71 †		
Skilled	33,46	-18,23 †	30,54 †	-0,29	0,69 †	75,25	18,42 †	56,18 †
Clerical	26,16	-7,01 †	48,45 †	-1,95	-0,07 †	40,31	24,81	64,61
Semiskilled	26,75	-15,70	34,58	-2,19	-1,03	37,64	2,75	35,51
Mining	-17,20 †			-0,37 †		7,90 †	1,54 #	33,92 #
Business Services	-9,88 †	-38,82 #	-2,33 #	-0,55 †	0,08 #	15,30 †	-16,66 †	9,92 †
Electr., gas, water	-2,98 #			-2,42 #		2,96 #		
Transport, Commun.	-11,65			-1,22		5,67	-26,64 #	-3,25 #
Construction	-2,22	-51,46 #	-22,51 #	-2,48	2,35 #	3,12	-17,02 #	9,43 #
Trade, Accommodation	-11,61	-51,38	-22,37	-2,00	1,73	-2,21	-21,88	3,03
Community Services	-16,28	-61,08	-37,87	-2,07	1,65	-8,01	-37,98	-18,20
Agriculture	-7,46 #			-3,93 #		-15,60 #	-48,25 #	-31,75 #
Std. 5/6	5,39	-34,18	5,08	-2,85	-1,16	7,11	-20,75	4,51
Std. 7/8	15,74	-23,71	21,79	-2,75	-1,82	18,83	-14,84	13,37
Std. 9/10	38,94	-15,36	35,12	-2,38	-1,12	47,94	2,27	34,87
Diploma	59,75 †	-13,12 †	38,70 †	-2,72	-1,85	64,48 †	-0,48 †	31,26 †
Degree	182,80 #	23,66 #	97,41 #	-4,73	1,01	138,24 †	84,95 †	143,92 †
Wife of Hh Head		-42,36	-7,98		-1,03		-29,73	-7,32
Not Head or Wife	-13,75	-45,01	-12,21	-2,93	-1,13	-13,00	-33,64	-12,48
Single	-5,34	-36,36	1,60	-2,65	-0,87	-1,87	-21,17	3,96
Lodger	-5,10	-34,71	4,24	-2,87	-0,94	-3,73	-19,69	5,92
Hostel	-9,46			-1,77		2,51	-19,39 #	6,31 #
Compound	3,36			-4,07		-7,03 †	-21,84 #	3,08 #
Business Premises	-22,25 †	-41,38 #	-6,42 #	-0,68 †	-0,54 #	-1,81 †	-24,94 †	-1,01 †
White areas	-35,48 †	-28,61	13,97	-0,84 †	-1,71	-19,87 †	-18,65	7,28
Working Life	1,18	1,50	1,50	-3,00	-1,07	1,29	1,84	1,84
Wkg Life squared	-0,03	-0,04	-0,04	-3,01	-1,10	-0,03	-0,04	-0,04
Job Duration	1,25	2,15	2,15	-2,92	-1,11	2,16	2,06	2,06
Job Durn squared	-0,03	-0,05	-0,05	-3,01	-1,10	-0,04	-0,04	-0,04
Omitted Categories	0,00	-37,36	0,00	-3,01	-1,10	0,00	-24,18	0,00

Notes: For the dummy (or non-continuous) variables, the 1975 and 1985 effects are given:
(1) relative to a male worker in the omitted category
(2) female worker, otherwise in the omitted set of categories, relative to a male in this set
(3) relative to a female worker in the omitted category but otherwise in the omitted categories
indicates less than 10 members of the category in question in 1975 or 1985
† indicates less than 100 members of the category in question in 1975 or 1985

TABLE A12 AVERAGE REAL RATES OF CHANGE (% PER ANNUM)

Variable	C A S H						T O T A L					
	1975/80		1980/85		1975/85		1975/80		1980/85		1975/85	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Pretoria	-2,16	-4,81	-2,85	0,71	-2,50	-2,05	-1,76	-4,78	-2,83	-1,17	-2,29	-1,80
Durban	-5,75	-3,95	-3,58	-2,12	-4,66	-3,03	-5,18	-3,67	-3,54	-1,48	-4,36	-2,58
Professional	-5,09	-7,27	6,86	3,62	0,89	-1,83	-4,42	-8,48	6,83	4,88	1,21	-1,80
Managerial	4,65	20,76	4,72		4,68		6,87	17,98	3,37		5,12	
Skilled	-4,11	-0,05	2,86	-3,61	-0,62	-1,83	-3,60	-0,77	2,93	-2,27	-0,34	-1,52
Clerical	-6,07	-9,68	0,21	3,24	-2,93	-3,22	-5,64	-10,76	0,39	4,33	-2,63	-3,21
Semiskilled	-6,78	-7,31	1,00	0,67	-2,89	-3,32	-6,54	-8,53	1,20	1,47	-2,67	-3,53
Mining	9,80		-10,32	-4,89	-0,26		9,57		-10,31	-6,71	-0,37	
Business Services	-2,74	0,08	1,13	1,97	-0,81	1,02	-2,43	-1,74	1,26	2,76	-0,58	0,51
Electr., gas, water	-8,98		4,82		-2,08		-8,44		6,45		-0,99	
Transport, Commun.	-2,26		-1,32	0,04	-1,79		-2,17		-1,03	-0,08	-1,60	
Construction	-6,05	-1,22	0,41	-1,20	-2,82	-1,21	-5,63	-2,91	0,57	1,43	-2,53	-0,74
Trade, Accommod.	-4,14	-0,09	-0,71	1,57	-2,42	0,74	-3,85	-1,84	-0,46	1,83	-2,16	-0,01
Community Services	-4,13	-1,45	-0,61	2,89	-2,37	0,72	-3,88	-3,57	-0,20	3,22	-2,04	-0,17
Agriculture	-1,76	-1,36	2,35	-1,56			-2,15		2,35		0,10	-2,72
Std. 5/6	-3,34	-2,77	-1,75	-1,11	-2,55	-1,94	-3,01	-4,15	-1,57	-0,80	-2,29	-2,48
Std. 7/8	-3,85	-2,42	-1,19	-2,84	-2,52	-2,63	-3,63	-4,02	-0,85	-2,59	-2,24	-3,30
Std. 9/10	-3,96	-2,06	-0,81	-2,23	-2,39	-2,15	-4,08	-4,31	-0,32	-1,78	-2,20	-3,05
Diploma	-2,13	-3,47	-4,65	-2,90	-3,39	-3,19	-1,86	-5,46	-4,26	-2,99	-3,06	-4,23
Degree	1,38	11,26	-8,01	-9,83	-3,31	0,71	2,71	11,09	-8,13	-10,19	-2,71	0,45
Wife of Hh Head		-3,36		0,48		-1,44		-4,60		1,04		-1,78
Not Head or Wife	-3,62	-4,28	-3,62	-0,87	-3,62	-2,58	-3,25	-4,59	-3,35	0,33	-3,30	-2,13
Single	-3,34	-4,42	-2,67	0,66	-3,00	-1,88	-3,20	-6,62	-2,65	0,75	-2,92	-2,93
Lodger	-7,40	-7,74	0,24	4,69	-3,58	-1,53	-7,15	-9,10	0,42	4,55	-3,37	-2,28
Hostel	-1,06		-3,67	8,61	-2,36		-0,35		-3,93	4,20	-2,14	
Compound	-0,83		-7,99		-4,41		-2,23		-8,51		-5,37	
Business Premises	-2,70	-4,76	-0,25	-0,95	-1,47	-2,85	0,03	-0,44	-1,59	-2,38	-0,78	-1,41
White areas	0,37	-2,71	-1,31	-3,67	-0,47	-3,19	-0,47	-0,62	-1,07	-3,02	-0,77	-1,82
Working Life	-4,63	-4,26	-2,34	-0,03	-3,48	-2,15	-4,29	-5,82	-2,13	0,66	-3,21	-2,58
Wkg Life squared	-4,74	-4,35	-2,23	-0,20	-3,48	-2,28	-4,40	-5,94	-2,04	0,48	-3,22	-2,73
Job Duration	-4,76	-4,24	-2,09	-0,37	-3,42	-2,31	-4,41	-5,87	-1,92	0,33	-3,16	-2,77
Job Durn squared	-4,74	-4,36	-2,23	-0,19	-3,48	-2,27	-4,39	-5,94	-2,04	0,49	-3,21	-2,73
Constant	-4,74	-4,35	-2,23	-0,20	-3,48	-2,27	-4,39	-5,94	-2,04	0,49	-3,22	-2,73

TABLE A13 CONTRIBUTION OF THE VARIOUS EFFECTS TO THE CHANGE IN AVERAGE WAGES (% PER ANNUM)

Effect	C A S H			T O T A L								
	- Structure -			-- Characteristics --								
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
A												
Area	-0,36	-0,09	-0,46	0,22	0,00	0,22	-0,30	0,02	-0,28	0,20	0,01	0,21
Occupation	0,60	-0,22	0,38	0,75	0,15	0,90	0,57	-0,20	0,37	0,74	0,12	0,86
Sector	0,79	0,69	1,48	0,02	-0,04	-0,02	0,82	0,58	1,40	0,02	-0,02	0,00
Education	0,13	-0,11	0,02	0,83	-0,01	0,82	0,14	-0,11	0,03	0,63	-0,08	0,55
Sex		1,01	1,01		-0,28	-0,28		0,68	0,68		-0,24	-0,24
H'hold Status	0,01	-0,06	-0,05	-0,18	0,00	-0,18	0,01	0,00	0,01	-0,19	0,01	-0,18
Marital Status	0,14	0,01	0,14	-0,02	0,05	0,03	0,11	-0,02	0,09	-0,02	0,04	0,02
Accommodation	0,46	-0,39	0,07	0,13	-0,03	0,09	0,40	-0,22	0,18	0,04	-0,05	-0,01
Duration	0,67	-0,16	0,51	0,09	0,03	0,12	0,62	-0,01	0,61	0,08	0,01	0,09
Constant	-3,29	0,00	-3,29	0,00	0,00	0,00	-3,01	0,00	-3,01	0,00	0,00	0,00
Total	-0,86	0,67	-0,19	1,65	-0,14	1,50	-0,65	0,74	0,09	1,50	-0,21	1,30
B												
Area	-0,33	-0,11	-0,44	0,18	0,02	0,20	-0,28	0,06	-0,22	0,18	-0,03	0,16
Occupation	0,92	-0,37	0,55	0,44	0,29	0,73	0,87	-0,32	0,55	0,43	0,24	0,67
Sector	0,80	0,78	1,58	0,01	-0,13	-0,12	0,83	0,66	1,49	0,01	-0,09	-0,08
Education	0,21	-0,19	0,02	0,56	0,07	0,62	0,21	-0,20	0,02	0,56	0,00	0,56
Sex		1,26	1,26		-0,53	-0,53		0,84	0,84		-0,41	-0,41
H'hold Status	0,02	-0,12	-0,10	-0,19	0,06	-0,13	0,02	0,00	0,02	-0,20	0,01	-0,19
Marital Status	0,18	0,01	0,19	-0,06	0,05	-0,02	0,14	-0,03	0,12	-0,05	0,05	0,00
Accommodation	0,32	-0,30	0,02	0,27	-0,13	0,15	0,28	-0,16	0,11	0,16	-0,10	0,06
Duration	0,71	-0,23	0,49	0,05	0,10	0,15	0,66	-0,05	0,61	0,04	0,05	0,10
Constant	-3,29	0,00	-3,29	0,00	0,00	0,00	-3,01	0,00	-3,01	0,00	0,00	0,00
Total	-0,47	0,73	0,27	1,25	-0,21	1,05	-0,28	0,80	0,52	1,13	-0,27	0,87
C												
Area	-0,34	-0,10	-0,45	0,20	0,01	0,21	-0,29	0,04	-0,25	0,19	-0,01	0,18
Occupation	0,76	-0,30	0,47	0,60	0,22	0,81	0,72	-0,26	0,46	0,59	0,18	0,77
Sector	0,79	0,74	1,53	0,02	-0,09	-0,07	0,82	0,62	1,44	0,02	-0,06	-0,04
Education	0,17	-0,15	0,02	0,59	0,03	0,62	0,18	-0,15	0,02	0,59	-0,04	0,55
Sex		1,13	1,13		-0,41	-0,41		0,76	0,76		-0,32	-0,32
H'hold Status	0,01	-0,09	-0,08	-0,18	0,03	-0,16	0,02	0,00	0,02	-0,19	0,01	-0,18
Marital Status	0,16	0,01	0,17	-0,04	0,05	0,01	0,13	-0,02	0,10	-0,04	0,05	0,01
Accommodation	0,39	-0,34	0,05	0,20	-0,08	0,12	0,34	-0,19	0,15	0,10	-0,07	0,03
Duration	0,69	-0,19	0,50	0,07	0,06	0,13	0,64	-0,03	0,61	0,06	0,03	0,09
Constant	-3,29	0,00	-3,29	0,00	0,00	0,00	-3,01	0,00	-3,01	0,00	0,00	0,00
Total	-0,66	0,70	0,04	1,45	-0,17	1,28	-0,46	0,77	0,30	1,32	-0,24	1,08

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