

INFLUX CONTROL, THE COLOUR BAR, MINIMUM WAGE LEGISLATION
AND THE EARNINGS GAP IN SOUTH AFRICA

by

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This paper aims to analyse the factors contributing to low African relative pay in mining and private manufacturing and construction (PMS), and to indicate how these factors are related to policies chosen to advance white economic interests. The hope is to cast light on the following questions: What effect has the Wage Board had on the earnings gap? Have African trade unions raised African wage rates? How has the colour bar changed over time - in particular, has the pressure of post-war full employment tended to break it down? To what extent have the pass laws tended to widen the earnings gap?

The white to African average earnings ratio, the "earnings gap", depends by definition on the relative skill composition of the two groups. It also depends on the structure of pay given the job, that is to say the spread of pay between skilled and unskilled jobs, i.e. the "skill margin", and differences in pay between whites and Africans in a given job (wage discrimination).

The structure of pay might be affected by the level of business activity. It might also be affected by institutional factors. Thus it is possible that the Wage Board and the Central Bantu Labour Board (CBLB) have on occasions raised the pay of unskilled workers relative to skilled. There is also the possibility that influx control will affect skill margins by reducing the relative rate of increase of African wage rates in economic expansion. As for relative skill composition, this is probably affected by the level of business activity, e.g. because there is a tendency to upgrade Africans in upswing conversely. It is also likely to be affected by the colour bar (which prevents Africans being upgraded relative to whites in industrial work), by influx control (which makes their training less worthwhile) and by schooling policy. The very poor schooling of Africans relative to whites is likely to make African job opportunities less favourable, even without discrimination in hiring.

We take in turn the economic forces acting on relative African pay and

- i) the Wage Board, Industrial Councils and African trade unions;
- ii) influx control;
- iii) the colour bar and education policy.

In the last section these strands are brought together. To save space, discussion and documentation have been limited.

The Wage Board, Industrial Councils and African Trade Unions

Speaking generally, wage minima are set by the Wage Board in industries where whites are not organized. Industrial Councils consisting of employers and representatives of non-African workers set minimum wages in industries where whites are organized.

It is probably fair to say that the Wage Board sets the pace for industrial councils in the setting of wage rates for unskilled (i.e. mainly African) jobs. Since 1930 a Department of Labour official has sat in on Council meetings when African wages are discussed, and since 1953 the CBLB has sent representatives to meetings. The Wage Board is final arbitrator when the CBLB cannot settle African disputes. Gazetting of Agreements can be, and has been, withheld until unskilled wages rates are raised to Wage Board levels. (1) Hence we can treat these two arms of the wage-setting machinery as one.

Official policy on the setting of unskilled rates has probably been much affected by African trade union and political activity. It can be summarized as follows. Prior to 1937 minimum rates had to be geared to "civilized" levels, and hence were not applied to Africans. After 1937, and especially during the war, minimum rates were raised for unskilled work in urban industry outside, with one exception, mining - see Table 1. The exception in mining was the Mine Natives' Wages Commission award in 1944. In particular, government-set cost of living allowances (introduced in 1942) were raised much more for low paid than high paid workers. (2) There was a great increase in African trade union membership at this time, reaching a peak of perhaps 160 thousand (3), and many instances of African trade union representations to the Wage Board.

Unskilled minimum rates seem to have continued to be raised until the early 1950s - see Table 2 - and again we can see African pressures, e.g. the 1950 riots on the Rand. Then, from 1953 to 1957 there was hardly any movement because, D. Pursell has said, of government "uncertainty" as to whether to increase white wages or African. (4) A more likely reason is that over this period African trade unions were disarray, for example, owing to the Suppression of Communism Act. By 1958 a survey showed only twenty thousand Africans in trade unions. (5) Renewed Wage Board activity in 1957 coincided with the Alexandra bus boycott and continued until 1964-65, despite a marked recession in the early 1960s. Here again we can look to African political activity (Sharpeville in 1960, Paarl in 1962) and trade union activity - membership rose to a peak of seventy-one thousand in 1961 (6) before falling away in the mid-1960s.

How do we distinguish the effect of wage setting policy on African pay relative to white? There is, in fact, a close association between yearly changes in unskilled minimum wage rates, \dot{m}_t , and changes in average African earnings rates in PMC, \dot{w}_{At} . (7) This need not mean, however, that minimum wage setting has independently affected African wages. If, say, the labour market is tight, the official "payability" criterion is more likely to be met (because profits are likely to be high or rising or both) and minima will be more readily raised. Yet this is also the time when employers will be short of labour and, in a competitive market, will be bidding wages up.

Certainly, however, this argument will not hold at times of high unemployment. If African wage rates rise then, and the Wage Board is known to have been active, the implication is that minimum wage setting is the cause. Moreover, this argument will not hold (whatever the level of unemployment) at times when labour bureau control over African labour allocation is strong, for then employers will tend not to resort to wage competition to obtain African labour. This has probably been the case since the setting up of bureaux in 1949 (see next section). Thus it is possible that the observed post-war association between increases in unskilled wage minima and African earnings increases does illustrate the causal role of government minimum wage setting.

There remains the point as to whether the raising of African wage rates need be accompanied by similar white wage increases. An examination by F. van den Bogaerde of the wage structure in Iron and Steel (employing about 20 per cent of the manufacturing labour force), however, has shown that while there is a firm relation over time between the earnings rates of the various white worker grades, there is not - perhaps because of "social distance", or the difference in the jobs performed - between white and African grades. (8) Thus it seems that a rise in unskilled pay need not be followed by a rise in skilled, that is to say the Wage Board can compress skill margins.

Influx Control

Labour bureaux set up since 1949 attempt to ensure that workers classified under section 10 (1) d of the Urban Areas Act (i.e. not qualified by birth or long residence to remain in the urban area) remain "temporary sojourners", working under fixed-term contracts in the urban areas, i.e. "contract" workers. The policy has long been to limit the urban African population to the "economic needs" of the urban areas, and to remove unemployed or "redundant" Africans. But it proved "impossible" (9) to prevent the movement of Africans off the reserves and, to a lesser extent, the white farms (though movement out of mining was largely ruled out since most mine-workers were foreign). With the establishment of bureaux, however, a potentially effective means came into action for limiting the African inflow and endorsing out "undesirables", including the unemployed. The coverage of bureaux is shown in Table 3.

Labour bureaux are likely to reduce voluntary mobility of Africans, particularly "contract" workers, between firms in the urban areas. This is to be expected partly because Africans who entered the urban area prior to 1969 will wish to remain with a given employer while qualifying for permanent residence (this stopped in 1968). It is also partly because Africans moving between jobs run the risk of being asked to leave the urban area if unemployed.

This effect will be the smaller the smaller the proportion of contract workers in the labour force and the more the system is evaded. It is probable, however, that contract workers form a majority of the urban African work force. The 1960 Census shows only 30 per cent of the indigenous urban African male labour force in the major metropolitan areas to be domiciled there - see Table 4. As for evasion, it is true that both African workers and employers have an incentive to evade the system. (10) Still, the high number of pass law convictions indicate a high risk to doing this - the number so convicted in 1960 equalled 14 per cent of the enumerated economically active African non-farm population. Moreover, the tinkering with the system, e.g. the "call-in cards" introduced in 1968 to encourage contract workers repeatedly to return to the same employer, so making their training worthwhile, shows it to be "alive".

The imposition of labour bureaux is likely to result in a once for all widening in the margin between skilled and unskilled pay in PMC, and lower fluctuations in unskilled pay over the cycle. The first effect results from limiting contract workers to a single job, so reducing their alternative wages from those prevailing for "permanent" Africans to those prevailing in the rural areas. The second is a result of less wage competition between employers. Instead of raising wages they will tend to "requisition" extra African labour from the bureaux when required. Both effects, as observed in movements of relative African pay, will be reinforced by the tendency of the "temporary sojourner" system to reduce the incentive to train and upgrade Africans. This, like the probable strengthening of the colour bar (see below), is likely to lower the relative skill composition of the African labour force and so relative average earnings. Also, because Africans are less likely to move up and down the occupational ladder over the cycle, there will be lower fluctuations in average African earnings ceteris paribus.

There is a way of seeing whether influx control and a tighter colour bar since 1949 do affect the trend and movement of African wage rates in PMC, as suggested. This is to compare the behaviour of African earnings over the cycle in the period prior to 1949 with that afterwards.

In fact, prior to 1949, we do find that African money earnings increase markedly faster when the economy is expanding, as indicated by a low level of white male unemployment (11), and conversely. African earnings react not at all to the cycle after 1949 - see Table 5. It can be seen as well that the trend rate of increase in African earnings is, as expected, somewhat lower after 1949, though this is not statistically significant (the trend rate of increase in white earnings is, however, significantly higher, as will be seen).

It is true that relationships of this sort are notoriously unstable, both with respect to the variables included and the time period covered. There is the problem as well of whether 1949 is the right year to partition the data. The best that can be said is that the results are consistent with the hypotheses, for which there is some other evidence from other sources. If our interpretation is correct, the wage gap will tend to widen with the introduction of labour bureaux, the widening perhaps being faster when the labour market is tight (because African workers are less able to take advantage of this) than when it is slack.

The Colour Bar and Education Policy

The colour bar, at least in industrial work, serves to reserve the higher paying, i.e. more skilled factory jobs, for whites. Outside mining, however, it has varied over time. In the depression in the early thirties, the colour bar in PMC probably shifted downwards as whites took on unskilled jobs and Africans were shunted into the pool of unemployed. (12) Over the war period it probably moved "upward". Evidence pointing to greater flexibility is the engineering unions' agreement to take on more apprentices (13) and the scarcity of white labour after perhaps 20 per cent of the white labour force (14) joined up. Moreover, during and immediately after the war there was an increase in relative African per pupil schooling expenditures - see Table 6 - and hence probably in their relative education levels and job opportunities.

In the post-war period there has been, on the one hand, the pressure of prolonged, vigorous economic expansion which is likely to have led to pressures to upgrade Africans. On the other hand, there have been institutional changes designed to prevent this upgrading. On the pressures to upgrade, studies of business activity show that, apart from a short, sharp recession in 1949, there was continuous expansion from the beginning of the war until early in 1958. (15): hence, the continuing claims of a "shortage" of labour to perform skilled jobs. Thus a "shortage" of skilled labour in South Africa is nothing new. The situation seems to have been similar in the next upswing, which can be dated as lasting from early 1962 until mid-1967.

In periods of prolonged economic expansion such as these, the supply of white labour for skilled jobs being inelastic, skilled wage rates are likely to rise markedly, leading to a cry of "shortage". We would then expect private employers to substitute against white labour by employing a greater proportion of unskilled labour and also by using African and other non-white labour in "white jobs", breaking the industrial colour bar.

Working against this breach, however, was the introduction of strict influx control in 1949, then in 1951 the Bantu Building Workers Act, and in 1953 Bantu Education - marked by a large fall in funds for African pupils relative to white. In 1956 job reservation was extended and in 1962 assisted white immigration, mainly of artisans (17), was begun. It is possible that these policies have successfully enabled the delimitation of fairly rigid separate job categories for Africans, though

less so for Coloureds and Asians. If this is true, then after 1949 in PMC African job opportunities will not have improved, despite expansion, and earnings of skilled workers - because they are in more inelastic supply - will have been pushed even higher.

A way of checking these suggestions directly is to compare jobs which whites and Africans have taken at different points in time. Unfortunately, this is possible only between 1946 and 1960, and then only at the level of the major job categories. The picture is given in Table 7. African relative representation increased in clerical and sales jobs, but as craftsmen/process workers, as miners and as labourers remained constant. Weighting occupational proportions by income received by occupation (18) shows that Africans did tend to move into slightly higher paying occupations. But so did whites, so African occupational composition improved very little, if at all, relative to white over this period.

An alternative, indirect, test rests on the proposition that if there has been increased separation of white and non-white spheres of work since 1949 white wage increases will have become more sensitive to the level of business activity. This is because prior to 1949 (say) the impact of a tight labour market on white average wage rates would be damped by the upgrading of non-whites, and conversely in slack years. After 1949, however, if it has proved less possible to promote Africans and, to a lesser extent, other non-whites (anyway a small proportion of the urban labour force), this will tend to bid up the rate of increase of skilled money wage rates when the market is tight ceteris paribus. On the other hand, during slack periods, since the supply of labour to skilled jobs does not contract because non-whites are downgraded, skilled rates will increase at a slower rate.

This is a possible interpretation of the difference pre- and post-1949 in the response of white average earnings rates in PMC to the level of unemployment revealed in the equation in Table 5. This equation is open to the same objection as the one for African earnings changes. Our interpretation is not, however, meant to stand or fall by itself, but rather to complement other findings (in this case) on apparent actual occupational shifts over time. Both sets of fragmentary evidence suggest that non-white, particularly African, and white spheres of work have become more rigidly delimited in the post-war period. This is a reason, additional to probable increasing skill margins consequent upon influx control, to expect the wage gap to have a tendency to widen since the war.

The Earnings Gap in Mining and PMC

With these concepts and facts in mind, look at Chart 1. Firstly, it can be seen that the gap is much higher in mining than PMC, even if we add 50% to African mine wages to allow for payments in kind. (19) Part of this difference is due to white labour being paid more on average in mining than PMC. This, presumably, reflects the arduousness of mining work. It could also reflect the stronger organization of whites on the mines - but if this were the case, the mines would not appear to suffer a shortage of white miners. (20)

Most of the difference, however, is due to Africans earning less on average in mining than PMC. This is partly because Africans are more skilled in PMC. An indication of this is that in PMC in 1960 the median level of African education was 1.2 years, in mining only 0.8 years. It is probably also because African mineworkers are paid less than Africans in comparable jobs in PMC. This is to be expected because Africans in PMC have always had more freedom of action to put pressure on the authorities to raise wage rates. Moreover, most African mineworkers, no matter how skilled, have no alternative jobs - hence the African skill margin in mining is likely to be very compressed compared to that in PMC. An indication of the probable higher wages given the job, and the greater prospects of promotion in PMC, is the marked tendency surveys have shown for Africans to tend to move out of mining into PMC. (21)

That Africans cannot take advantage of this pay differential, so that it continues and has widened over time, reflects the operation of the influx control (and passport) system acting to prevent foreign and also (but probably less successfully) indigenous Africans moving into PMC.

Secondly, it can be seen that the trend of the gap and movements about trend have differed between the two sectors. In mining, the gap has widened steadily, the only real interruption being its marked fall with the Mine Natives' Wages Commission award in 1944. African miners' pay has been remarkably constant over time, indicating the restriction of their alternative earning opportunities owing to the pass laws, and the absence of minimum wage intervention. White miners' earnings have, however, risen strongly. The reason for this is likely to be that there is nothing to prevent them, over the longer term, moving out of the industry if their earnings rates are below those for similar work elsewhere.

Different factors bear on the earnings gap in PMC. Here, as we have seen, there have probably been changes in the colour bar, in the impact of influx control, and in the pressure of minimum wage legislation. The most obvious movement of the gap is its large shrinkage during the war years. This can be ascribed to the higher wage minima and cost of living allowances set for Africans than for whites - probably a reflection of the vigorous wartime African Union movement - and relative upgrading of Africans during the wartime scarcity of white labour.

In the strong expansion from mid-1932 to early 1937, the gap widened slightly, but not nearly so strongly as it was to do in the post-war expansion. On our argument, this would be because increases in white average earnings rates were damped by the possibility - the colour bar not being as strong as later - of non-whites being moved up the job ladder. Another factor could be that African wage rates were bid up by employers, since African voluntary mobility was not then inhibited by the labour bureau laws.

After the war there is a steady widening of the gap except for the period 1958-9 to 1963. We would expect the enforcement of influx control to cause African wage rates to rise less in periods of economic expansion (which have generally characterized the post-war period) than they would otherwise. The possible strengthening of the colour bar would have the same effect. Moreover, it would, by making the supply of labour to skilled jobs more inelastic, cause white average earnings to rise faster in periods of expansion.

Working against this has been minimum wage setting. The government seems continuously to have raised unskilled rates of pay from 1958 to 1964 or 65. This, plus the slower rate of increase of white average earnings in the recession of 1958-62 (the obverse of the increased inelasticity of the supply of skilled labour), is probably the main reason for the downward movement of the gap over most of this period. Perhaps the slackening of official upward pressures on African wages, itself a reflection of repression of African union and political activity, together with renewed economic expansion, explain the renewed upward trend of the gap after the mid-sixties.

Looking briefly at the current period, the gap in mining appears to have peaked at nearly 20 in 1971 and then declined precipitously to reach about 11 in 1974. In PMC as well there has been a decline, with a value of around 6 for the gap in 1971 and 5.5 in 1973. Using our framework, the main explanatory factor in mining is probably the need for increased competition with manufacturing for indigenous labour, given the cutback in foreign labour supplies. In manufacturing, the important factors are likely to be the strikes in Natal in 1973 and, more recently, in the Transvaal, which seem to have been accompanied by increased unionization and, as we would expect, a more active minimum wage policy.

Notes

- (1) See, for example, Industrial Legislation Commission, UG 62/1951, para. 1350; Report of the Department of Labour for 1967, RP 68/1968, p 15.
- (2) See A. Spandau, "South African Wage Board Policy - an alternative interpretation", SAJE, December 1972, p 380.
- (3) See E. Roux, Time Longer than Rope (1964), p 333.
- (4) D. Pursell, "South African Labour Policy: 'New Deal' for the Non-Whites?", Industrial Relations, February 1971, p 40.
- (5) G. Clack, The Changing Structure of Industrial Relations in South Africa, PhD Thesis, London University, 1962, Table III.
- (6) SAIRR, Survey of Race Relations, 1962, p 206.
- (7) $\hat{w}_{At} = 3.25 + .326\hat{m}_t$, $\bar{R}^2 = .330$, $dw = 1.1$, yearly observations 1946-68.
(5.37) (3.35)
- (8) F. van den Bogaerde, "Occupational wage differentials in the South African Metal Industry", SAJE, December 1962, p 282.
- (9) P. G. J. Koormhof, The Drift from the Reserves among the South African Bantu, D Phil Thesis, Oxford, 1953, p 326; see also pp 365 ff.
- (10) See P. J. van der Merwe, "The economic influence of the Bantu labour bureau system on the Bantu labour market", SAJE, March 1969, p 52.
- (11) The African unemployment rate is not available - see I. Hume, A Study of Inflation in South Africa, D Phil Thesis, Oxford, 1971, Chapter 4.
- (12) See, for example, Industrial Legislation Commission, op. cit., para 1075, and Select Committee on the Industrial Conciliation Bill, SC 3/1955, p 46.
- (13) Report of the Department of Labour for 1945, UG 9/1947, p 2.
- (14) Yearbook, No 23, 1946, p 20.
- (15) J. Du Plessis, Economic Fluctuations in South Africa 1910-1949 (Stellenbosch, 1950); D. Smit et al., "Business Cycles in South Africa during the post-war period", SARB Quarterly Bulletin, September 1970.
- (16) See, for example, Smit, op. cit., p 32.
- (17) See House of Assembly Debates, Vol 55, 1971, col. 291.
- (18) See G. Becker, The Economics of Discrimination, 2nd ed. (Chicago, 1971), pp 135 ff.
- (19) See G. Leistner, "Foreign Bantu workers in South Africa", SAJE, March 1967.
- (20) See F. Wilson, Labour on the South African Gold Mines 1911-1969 (Cambridge, 1972), p 117.
- (21) See, for example, S. van der Horst, African Workers in Town (Cape Town, 1964), Table 19.

Table 3

The Number of Wage Determinations made yearly and
Their Approximate Coverage,^a by Colour, Republic
1926 to 1967

	No. of Dets.made			Coverage (000's)			No. of Dets.made	Coverage (000's)		
	White	Col.+As.	Af.	White	Col.+As.	Af.		White	Col.+As.	Af.
1926 ^b										
27	25 ^c				1951	6	8.2	1.7	6.6	
28					52	6	3.2	2.4	3.8	
29					53	2	51.3	8.8	33.1	
1930				54	1	2.3	1.6	2.6		
31	26	66.7			55	1	0.6	0.6	1.5	
32					56	3	10.1	4.9	11.0	
33					57	3	0.1	0.3	4.9	
34		3.	5.5		58	4	3.5	11.3	22.1	
35	0	2.1		59	15	3.9	5.3	62.6		
36	0	- 6.6 ^d		1960	19	7.5	3.7	23.7		
37	4	4.0	0.9	2.0	61	8	57.2	14.3	44.6	
38	6	2.0	0.7	3.0	62	13	15.7	7.0	50.9	
39	7	41.7	11.0	29.2	63	10	6.1	6.3	13.0	
1940	6	2.8	3.8	18.1	64	11	18.9	13.1	39.2	
41	10	11.1	4.5	10.6	65	11	3.8	5.4	29.6	
42	18	11.8	12.2	72.9	66	14	2.1	6.0	63.6	
43	10	2.2	13.0	9.4						
44	6	1.6	0.6	10.6						
45	8	3.8	10.4	25.9						
46	5	1.4	1.7	12.5	Dec.					
47	9	6.9	4.7	15.7	1967	125	118.6	68.9	267.9	
48	6	4.8	1.9	8.2		Industrial Council Agreements				
49	3	0.9	0.8	1.9		98	194.1	195.6	444.1	
1950	3	2.1	0.7	9.9						

Sources: Social and Industrial Review, and Reports of the Department of Labour.

Notes a) The yearly change in the number of wage returns received from employees regulated by Wage Determinations is an approximate measure of the coverage of the Determinations made in that year.

b) The Wage Board was constituted 12 Feb. 1926..

c) 8 of these Determinations were inoperative as a result of various court judgements.

d) The decrease in the coverage of Determinations was due to new i.c. Agreements coming into force, and some Determinations therefore being suspended.

Table 2

Indices of Minimum Wages in Manufacturing for General Labourers and Changes in Food Prices, Republic, 1946 to 1968

	General Labourers ^a		Food Prices
	Index	Rate of	Rate of
	Rand p.week	Change ^b	Change ^b
		% p.a.	% p.a.
1946	4.5	5.0	4.0
7	4.6	2.6	4.2
8	4.7	2.3	2.9
9	4.8	1.8	4.3
1950	4.9	2.3	6.3
1	5.0	3.4	12.0
2	5.2	8.3	10.1
3	5.9	5.6	3.0
4	5.9	0	2.0
5	5.9	0	2.6
6	5.9	0	2.7
7	5.9	0.3	3.6
8	6.0	3.6	2.0
9	6.3	3.0	1.0
1960	6.3	5.9	1.9
1	7.1	9.8	0.7
2	7.7	5.7	0.2
3	7.9	2.1	2.8
4	8.0	10.6	5.1
5	9.7	8.3	4.7
6	9.7	0	3.5
7	9.7	0.	2.5
8	9.7	0.1	1.6

Sources: Union Statistics for 50 years, South African Statistics 1964, 1966, 1968, 1970.

Notes: a. This index is an employment-weighted index of minimum wages for 'general labourers' in the Leather, Rubber and Chemical industries, for which figures are published. This procedure follows Hume, op.cit. p. 220.

b. Rates calculated as $(x_{t+1} - x_{t-1})/2x_t$, before rounding.

Table 3

The Number of Labour Bureaux and the
Number of African Labourers Registered,
Selected Years, 1949 to 1971

	No. of Labour Bureaux			Workers Registered (000)
	Local Bureaux set up	District voluntarily by local	Tribal authorities	
1949-52				
1953	182	-	-	692
1958	287	278	-	1108
1963	334	353	-	1093
1966	411	341	-	1379
1970	416	379	471	3200
1971	416	405	296	3471

Sources: Various Reports of the Department of Bantu Administration and Development, and House of Assembly, Questions and Replies vol. 35, 1971, col. 385-6 and vol.40, 1972, col. 250.

Table 4

Domicile of Indigenous, Economically Active,
African Males Enumerated in 14 Major Metro-
politan Areas

Domiciled in:-

	Towns in Met. Area	Other Towns	Bantu Areas	Other Areas	Total Indigenous Enumerated	Foreign Workers Enumerated
No. (000)	234.0	84.8	404.4	78.6	801.8	253.5
	29.2	10.6	50.4	9.8	100	

Notes: Domicile is defined as 'the area where permanent residence is situated'.

Source: 1960 Census.

Table 5

Determinants of the Rate of Change of Average
Annual Money Earnings, Private Manufacturing
and Construction

		Dependent Variable	
		Rate of Change of African earnings (% p.a.)	Rate of Change of White earnings (% p.a.)
Constant:	pre-1949	-3.94 (1.79)	-11.61 (2.60)
	post-1949 addition	-1.91 (1.44)	4.41 (3.84)
White male unemp. rate: (%)	Pre-1949	-1.72 (2.55)	.37 (.54)
	post-1949	.32 (.13)	-5.93 (2.86)
Rate of change of c.p.i. (% p.a.)			.97 (5.96)
Rate of change of food prices (% p.a.)		.39 (3.44)	
Real mfg. product per man (R100(1938 prices)/man)		1.96 (3.67)	
Mfg. gross output to wage ratio (%)			.08 (2.91)
-2 R		.509	.743
D-W		1.7	1.4

Notes: Periods pre-1949 period extends from 1926 to 1948 excluding 1931-32 and 1941-4 inclusive.

post-1949 period extends from 1949 to 1968.

Lags all independent variables are lagged 6 months except the labour productivity and profit variables which are lagged 1 year.

Specification - other specifications available on request.

t ratios are in brackets.

Table 6

Government Expenditure on Schooling,
Republic, Selected Years 1930 to 1970,
Rand per Pupil

	White	Coloured or Asian	African	Ratio White/African
1930 ^a	44	9	4	10.8
1935 ^b			4	10.0
1945 ^c	77	22	8	9.8
1949 ^d	84	33	13	6.5
1953/4 ^e	128	40	18	7.1
1960/1	137 to 152 ^f	42 to 74 ^f	13 ^c	11.6
1969/70	282 ^h	73, 81 ^j	17 ^g	16.6

Sources: b Departmental Committee on Native Ed., U.G. 29/1936, para.302.

a, c, e M. Horrell, A Decade of Bantu Education, Johannesburg, 1964.

d, f, M. Horrell, The Education of the Coloured Community, Johannesburg, 1970.

g House of Assembly, Questions and Replies, vol. 35, 1971, col.817

h S.A.I.R.R. Survey, 1972, p.44.

j Ibid, p.44; figures refer to Coloureds and Asians respectively.

Table 7

Occupations of Employed Males of Specified Occupation in the Civilian Non-Farm Population, Republic, 1946 and 1960.

A

Proportions, L_{ij}/L_j

	White		Coloured		Asian		African	
	1946	1960	1946	1960	1946	1960	1946	1960
Professional	9.8	11.9	2.4	23.5	1.7	4.6	1.0	1.5
Managerial	7.6	7.5	.2	.7	1.1	2.7	.3	.3
Clerical	9.8	18.3	.8	3.2	3.0	8.9	.4	1.1
Sales - Wg, Prp	4.9	2.5	.5	.5	13.8	9.1	.6	.4
Other	4.7	5.7	2.9	3.3	16.3	15.6	.6	1.3
Miner	5.6	4.3	.2	.2	.0	.2	.1	.0
Trans Wr.	12.8	8.7	5.8	10.2	6.2	8.3	1.1	4.0
Labourer	5.0	1.9	43.5	31.8	16.2	10.3	73.2	73.2
Craftsman Process Wr.	33.0	33.1	29.9	30.7	26.3	27.1	3.6	4.6
Service Wr.	6.6	6.1	13.8	8.0	15.0	13.5	19.6	13.6

B

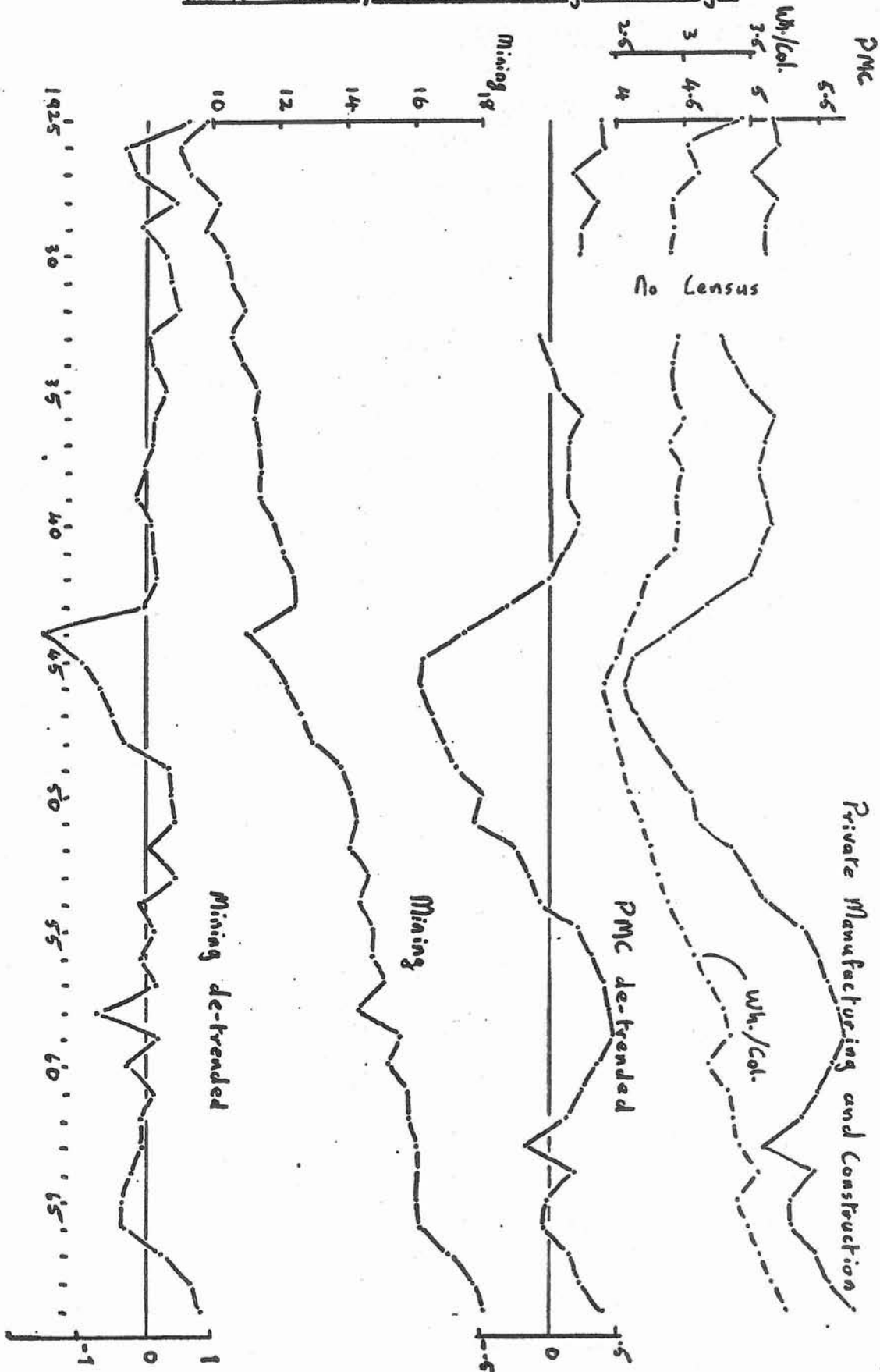
Proportions Relative to Total Labour Force $(L_{ij}/L_j)/(L_j/L)$

	White		Coloured		Asian		African	
	1946	1960	1946	1960	1946	1960	1946	1960
Professional	2.7	2.6	.7	.8	.5	1.0	.3	.3
Managerial	3.3	3.1	.1	.3	.5	1.1	.1	.1
Clerical	3.2	2.9	.2	.5	1.0	1.4	.1	.2
Sales-Wg Prop.	2.6	2.0	.3	.4	7.3	7.3	.1	.3
Other	2.0	1.8	1.3	1.1	7.0	5.0	.2	.4
Miner	3.5	3.5	.1	.1	.0	.0	.0	.0
Trans. Wr.	2.6	1.5	1.2	1.7	1.3	1.4	.2	.7
Labourer	.1	.0	.9	.8	.3	.2	1.5	1.5
Craftsman) Process Wr)	2.3	2.2	2.0	2.0	1.8	1.8	.3	.3
Service Wr.	.4	.5	.9	.7	1.0	1.2	1.3	1.3

Sources: Bureau of Census and Statistics, Population Census 7th May, 1946, Vol. V, and Population Census 6th September, 1960, various tables.

Notes Occupational titles for the 1946 Census defined according to the International Standard Classification of Occupations (I.L.O., Geneva, 1958) as used in the 1960 Census.

CHART 1
Ratio White/African Average Earnings



Note: Payments in kind are not included in the PMC or Mining differential