

THE EVOLUTION OF SKILL WAGE DIFFERENTIALS IN A DEVELOPING ECONOMY: THE NIGERIAN EXPERIENCE

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IN RECENT LABOR economics literature, some writers hold that the lower the degree of a country's industrialization the wider its skill wage differentials. Reynolds and Taft, for example, assert that such differentials have been "shrinking throughout recorded period" [29, p. 357] and that the "tendencies seem to be largely independent of the forms of organization" [2, p. 187]. This "natural history" hypothesis of skill wage differentials for a developing economy should be tested and here Nigeria will be used for the example to provide an explanation of trends in the country's skill wage differentials.

I. METHODOLOGY AND DATA

There are three main problems in an analysis of this type. The first relates to the measurement of skill wage differentials. Basically, such differentials can be measured either by the absolute difference in the wages of skilled and unskilled manual workers or by the ratio of their wages. Applied to the same set of data, the two methods may yield different results on the behavior of skill wage differentials. The measurement of differential by ratio of wages has been adopted in this paper because it abstracts from the problem of inflation and appears to better reflect changes in the relative well being of skilled and unskilled workers. International comparison of wage differentials is also facilitated by the use of this measure.

The second problem in the analysis of skill wage differentials is conceptual in nature. There is no objective criterion for measuring differences in the degree of skill in any given occupation, so that one can thus not avoid making some drastic simplification in the measurement of skill wage differentials. In presenting a picture of the evolution of the differentials in Nigeria, the simple approach has been followed of observing the trend through changes in the relative wages of selected pairs of occupations traditionally classified as skilled and unskilled, and of their broad classifications.

Also, there is the problem of data availability. Ideally, for an analysis of wage differentials one needs wage data that are both reliable and consistent for a long period. Unfortunately, in Nigeria as in many developing countries, wage

statistics that satisfy both conditions are almost nonexistent. Such data as exist in official publications are, for example, prefaced by so many words of caution that serious doubt is cast on their reliability. Owing to these difficulties, it has been possible to cover only a few sectors of the economy in our analysis. And even then, statistical information available on these has not been uniform. Specific defects in data and the possible bias they introduce into the results are examined in the course of the analysis.

Table I shows the trend of skill wage differentials in selected sectors of the Nigerian economy during the period 1953 to 1970. In some sectors, no uniformity exists over time in the type of data used in calculating the differentials, the calculation being based in some years on wage earnings and on wage rates in others. This approach, often adopted when a consistent series of data is unavailable,¹ is not likely to introduce any serious bias into our results. In Nigeria, owing largely to the limited use of piece rates and payments by results,² wage earnings are roughly equal to wage rates. Even where they differ, the expression of skill differentials in percentage terms (as is done here) would eliminate the bias in differentials except in the unlikely event of the wage drift being greater for one skill category than for another.

Over the period covered by Table I, there was a high degree of compression in the premium for skill in Nigeria. In 1953, the unskilled labor's minimum wage amounted to just 57 per cent of that of the skilled worker (artisan) in federal government service. By 1970, the percentage ratio had risen by 20

TABLE I
INTER-SKILL WAGE DIFFERENTIALS IN SELECTED SECTORS OF THE
NIGERIAN ECONOMY, 1953-70

Year	Federal Govt General Laborer as % of Artisan ^a (Lagos)	Coal Mining Underground Laborer as % of Hewer ^b (Enugu)	Electricity Laborer as % of Electric Fitter ^c (Lagos)	Construction Laborer as % of Bricklayer ^c (Lagos)	Transport & Communica- tions Railway Porter as % of Mechanic ^c (Lagos)
1953	57	57	32	35	41 ^b
1960	67	82	69 ^a	53	69 ^a
1965	77	90	77	77	77
1970	77	n.a.	75	85	72

Sources: Nigeria, Federal Ministry of Establishments, *Circular No. 20/1960* and *No. 7/1964* (Lagos); Nigeria, Federal Office of Statistics, *Digest of Statistics*, Vol. 17, Nos. 2 and 3 (1968); [31].

^a Wage ratio calculated on the basis of minimum wage rates.

^b Wage ratio calculated on the basis of average wage earnings.

^c Wage ratio calculated on the basis of prevailing wage rates.

¹ See, for example, *Report to the Government of Ghana on Questions on Wage Policy* (Geneva: International Labour Office, 1962), p. 60.

² See, for example, *Survey of Wages and Salaries, 1965* (Lagos: Nigeria Employers Consultative Association, 1966), p. 9.

points to 77 per cent. That there has been a narrowing of the wage differentials is also clearly evident from a comparison of the changes in the wages of the two categories of labor. Between 1953 and 1970, the index of minimum wage rate increased from 100 to 216 and 294 for skilled and unskilled labor respectively.

In Nigeria, "government is the largest employer (of labour) and its own actions inevitably set the pace and pattern for the general level of wages throughout the country" [25, Nov. 1959, p. 7]. That the other sectors of the economy have tended to follow government lead is partly reflected in the trend of their skill wage differentials. The skill wage ratio in electricity, construction, and transport and communications which amounted to 32, 35, and 41 per cent respectively in 1953 rose substantially in subsequent years. By 1970, they stood at 75, 85, and 72 per cent respectively. In the coal mining industry, the unskilled/skilled labor wage ratio rose from 57 to 90 per cent between 1953 and 1965. Thus, the skill wage differentials in these nongovernment sectors have also been characterized by considerable narrowing over the years.

The Federal Office of Statistics' *Employment and Earnings Reports* (1956-60) and *Industrial Surveys of Nigeria* (1963-67)³ provide a comprehensive set of data for analyzing the trend of skill wage differentials in the Nigerian industrial sector. Table II shows the pattern of such differentials for the period 1956 to 1967. Owing to the difference in the classification of skilled labor, the skilled/unskilled wage ratios for the subperiods 1956-60 and 1963-67 are strictly not comparable. It is, however, clearly evident from this table that there was a narrowing of skill wage differentials in each of the subperiods: the wage ratio rising from 42 to 52 per cent between 1956 and 1960, and from 49 to 66 per

TABLE II
SKILL WAGE DIFFERENTIALS IN THE NIGERIAN INDUSTRIAL SECTOR, 1956-67

	Average Earnings (N)		Unskilled as % of Skilled
	Skilled Labor*	Unskilled Labor	
1956 (Sept.)	22.2	9.4	42
1958 (Sept.)	26.0	11.6	45
1960 (Sept.)	28.2	14.8	52
1963	322	154	49
1964	350	198	57
1965	360	202	56
1966	364	220	60
1967	410	270	66

Sources: Nigeria, Federal Office of Statistics, *Employment & Earnings Report, 1956-1960*; idem, *Industrial Survey, Nigeria, 1963-1967*.

* Artisan, 1956-60; skilled/semiskilled labor, 1963-67.

³ Since 1968, the *Industrial Survey* has ceased to provide data separately for skilled and unskilled labor. Both have been combined and reclassified into a new labor category—manual labor. This limits usefulness of the more recent surveys for our analysis.

cent between 1963 and 1967. Over time, the behavior of skill wage differentials in the industrial sector has, therefore, been similar to that in other sectors.

The Nigerian experience, as shown by fragmentary evidence presented above seems to provide some support for the "natural history" hypothesis of skill wage differentials, which postulates a secular compression of the differentials. However, while the secular trend of the country's skill wage differentials has been narrowing, such narrowing has not been evenly spread over time. The narrowing process in the government service has taken the form of discontinuous jumps in the wage ratio, with the jumps occurring mainly in the years of major reviews of wages and salaries by the government. In between such years, differentials are characterized by relative stability. Thus, all the compression of skill differentials that took place during the period 1953 to 1970 occurred in 1954, 1959, and 1964.

In nongovernment sectors, the pattern of behavior of skill wage differentials has been roughly similar. Generally, the years of substantial upward thrust in their wage ratios (i.e., of substantial shrinking of skill wage differentials) coincide with or lag by one year the years of government wage review. However, in contrast to the relative stability of skill wage differentials in government service, fluctuations seem to be a marked feature of such differentials in nongovernment sectors during the inter-review periods. While the fluctuations have been in both directions, the dominant pattern appears to be toward a widening of the differentials, with the unskilled labor tending to lose some of the ground gained in the years of the wage review.

What broad conclusions can one draw about the evolution of the Nigerian skill wage differentials from the data presented above? Before answering this question, a caveat is in order. Owing to the paucity of data, the statistical base of the analysis is narrow, hence, it is necessary to regard the conclusions as tentative. The dominant tendency over the years was for the skill wage differentials to narrow. This compression of differentials has not been uniformly spread over time. It has been largely discontinuous and particularly marked in certain years (i.e., 1954, 1959, and 1964) in between which the differentials remain fairly stable or widen slightly.

One consequence of the secular decline in Nigeria's skill wage differentials is that the country now has one of the narrowest wage margins for skill in Africa. This is clearly evident in Table III which shows for selected African countries, skill wage ratios in six industries in 1970. Of the twelve African countries for which the relevant data are available, Nigeria has the highest unskilled/skilled labor wage ratio. Relatively to the premium for skill in advanced industrial countries, however, the Nigerian skill wage differentials are, in spite of their secular compression, still wide.⁴

⁴ For example, in 1970, the average of the skill wage ratios in the six industries in Table III amounted to 90 and 88 per cent in Germany and Netherlands respectively. See [31, pp.115, 117].

TABLE III
SKILL WAGE DIFFERENTIALS IN SELECTED AFRICAN COUNTRIES, 1970

Country	Textiles Unskilled as % of Weaver	Printing Unskilled as % of Compositor	Construction Unskilled as % of Bricklayer	Machinery Unskilled as % of Fitter	Transport Railway Porter as % of Mechanic	Electricity Unskilled as % of Electric Fitter	Average of Skill Wage Ratios
Niger	53	32	32	n.a.	n.a.	32	37
Mali (Bamako)	52	32	45	n.a.	59	23	42
Sudan	n.a.	44	44	n.a.	51	43	46
Ghana (Accra)	37	56	59	63	43	38	49
Cameroon	54	57	69	69	27	37	52
Congo* (Kinshasa)	59	32	n.a.	66	58	63	56
Senegal	62	57	62	59	61	51	59
Togo	25	50	96	n.a.	67	59	59
Tunisia	85	48	60	49	58	53	59
Morocco* (Casablanca)	50	58	92	n.a.	61	60	64
Tanzania	81	77	67	n.a.	50	57	68
Nigeria (Lagos)	90 ^c	70	82	76 (Kaduna)	72	75	78

Source: [31].

Note: Differentials are calculated on the basis of basis of wage rates.

* Differentials calculated on the basis of wage earnings.

II. THE DETERMINATION OF SKILL WAGE DIFFERENTIALS IN NIGERIA

In giving an explanation for the observed size and trend of Nigeria's skill wage differentials, we should point out that analysis of the determinants of any given type of wage differential is not always easy. In most cases, the difficulty arises from the large number of explanatory variables (some not quantifiable) which have to be taken into consideration. The fact that these variables are quite often interdependent complicates any attempt to isolate the influence of one from that of the other. It has been said of the wage structure in the United States that its "most outstanding characteristic is the absence of any consistent pattern which can be explained on any logical basis or within the scope of any one general principle" [28, p. 283]. To a large extent, this statement seems to hold true for the wage structure in developing countries such as Nigeria.

Several paths of causality are open to explain the size and trend of Nigeria's skill differentials. Here, we shall distinguish between two broad categories of possible factors shaping such differentials: market and institutional forces. The former includes variables like supply and demand for labor, and represents the sum total of economic factors that influence wage determination. Realizing the fact that the market in which relative wages are determined is far from com-

petitive has led economists to include and lay increasing emphasis on institutional factor among the determinants of relative wages. In Nigeria, the most crucial factors are government and trade union policy and action. The core of our analysis of determinants of Nigeria's skill wage differentials is the assessment of the degree to which institutional forces limit the influence of market forces on such differentials.

A. *The Role of Market Forces*

It has been argued that all "wage theory is in a sense demand and supply analysis. A wage is a price, and the wage structure is a sub-system of prices. Prices and price systems are fruitfully to be interpreted in terms of demand and supply" [2, p. 14]. In the present analysis, we shall infer the extent to which market forces have shaped Nigeria's skill differentials from the degree to which the latter reflect the supply and demand conditions (i.e., the relative scarcity) of skilled and unskilled labor.

The crucial question we need to answer is whether the secular compression of Nigeria's skill wage differentials can be explained in terms of changing pattern of supply and demand for skilled and unskilled labor. While a precise statistical answer cannot be given to this question because of the paucity and inadequacy of labor supply and demand data in Nigeria, considerable light can be shed on the issue through an analysis of the factors which in the post-world war years determined the supply and demand for labor.

The immediate postwar years were characterized by a surplus of unskilled and a shortage of skilled labor. As early as 1935, the influx of people from rural areas in search of wage-employment in urban centers was of such concern to the authorities that a committee was appointed to look into the problem [22]. Considerable stimulus was given to the influx in the war years by heavy demands for labor on military works [6, 1946, p. 97]. The influx did not cease with the end of the war. As the Department of Labour reported in 1950, there "has been no marked change in the tendency of peasant workers to leave the countryside for the towns" [10, 1949-50, para. 135]. The effective supply of unskilled labor at the beginning of our review period consisted of this growing pool of job seekers and those who were self-employed but preferred wage employment if there was an opportunity.

The demand conditions were such that "it was, of course, impossible to absorb such a steady influx" [6, 1946, p. 17]. With the cessation of hostilities, effective demand for unskilled labor derived from the normal expansion of activities of the government and private employers. On the part of the government, there was no commitment to either rapid industrial expansion or to programs likely to bring about a rapid expansion of wage employment. This was apparent, for example, in the Ten-Year Development Plan which according to the then Development Secretary "does not envisage Nigeria becoming a country of factories with a multitude of chimneys belching forth smoke and producing a mass of manufactured goods" [34, Apr. 6, 1946, p. 286]. The bulk of planned and

actual expenditure was on services (such as education and health) with relatively low inputs of unskilled labor. It was not until the launching of the 1955-60 economic program that "emphasis was shifted from expansion of social services to gearing the economy towards modern industrialization" [27, p. 5]. Thus, the demand for unskilled manual labor emanating from the government sector was not much in the earlier period.

The demand for this category of labor by the private sector was not significant either. Expansion of private employer activities (predominantly foreign) that did occur were mainly in the field of trade, to meet the pent-up demand for imported goods. It was not until the late fifties that the major foreign companies began to move into the industrial field.

Therefore, although unemployment among the unskilled was not yet a serious social and economic problem, it has become in recent years, in the earlier years, the effective supply of unskilled labor was more than its effective demand in wage employment.

The converse was the case in regard to the market for skilled labor. This is hardly surprising in view of the very limited facilities that existed for organized apprenticeship training and vocational education in Nigeria. The allocation of N2.2 million in the Ten-Year Plan to develop technical and vocational education was to solve this problem through the establishment of technical institutes and trade centers. For a long time, these institutes were, however, ineffective for two reasons. First, postwar reconstruction in the United Kingdom, the main source of high-level manpower in Nigeria then, meant that an adequate technical education teaching staff could not be easily recruited there. Secondly, because of the relatively narrow base of Nigeria's educational pyramid, the institutions had difficulty in recruiting adequate students. Only a very small proportion of school-age children were in primary schools and up to the mid-1950s, the primary school leaver could easily secure a job as an office messenger, an elementary school teacher, or as a junior clerk. For those who had the inclination to continue their education after primary school, the pull of an academic type of education (whose products enjoy greater prestige and higher pay) was much stronger than the vocational. Owing largely to the above-mentioned factors, the supply of skilled labor was small.

The demand for skilled labor was increasing fairly rapidly over the small supply. Although government expenditure in nonservice sectors was relatively small, it stimulated the demand for skilled labor. For example, the expansion of transport and communications brought with it the need to service and repair a variety of machinery and equipment; and the construction program called for the services of artisans like painters, bricklayers, etc. This point has been aptly put by the United Africa Company as follows:

The post-war demand for craftsmen and technicians of all types has been nourished by the mounting imports of motor vehicles, radios, refrigerators and mechanical and electrical appliances of all kinds, reflecting the prosperity born of high produce

prices; by Government Development Plans, with their emphasis on large-scale building and construction works; and by the growth of industrialization. [30, p. 4]

In the relatively underdeveloped state of vocational training then prevalent such demand, limited as it was, could not be adequately met. It was shortage of artisans that led to vocational education being accorded high priority in the Ten-Year Development Plan [23, p. 18]. Almost ten years after launching the plan, the shortage of artisans was still regarded as a crucial factor limiting Nigeria economic development [10, 1953-54, para. 40].

In the perfect market system of competitive theory, the coexistence of surplus unskilled labor with a shortage of skilled labor, such as depicted above, would produce a large premium for skill. Hence, the wide skill wage differentials observed for the early part of our review period seem to be compatible with the market conditions then prevalent for skilled and unskilled labor.

The degree to which a relative shortage of skill labor manifests itself in a large skill premium depends largely on the extent to which unskilled labor can be substituted for the skilled. *Ceteris paribus*, the higher the degree of substitutability that is possible, the lower the skill differentials. There is considerable scope for such substitution where the level of education of unskilled labor is relatively high, for under such conditions, new skills can more easily and quickly be acquired by unskilled labor through on-the-job training. The scope for such substitution was limited in Nigeria. As stated earlier, up to the second half of the 1950s, a primary school leaver had a reasonable chance of getting a job as a junior clerk, an office messenger, or a pupil teacher. The bulk of the unskilled were illiterates who could hardly read or write, hence, not much inter-skill substitution could take place.

The Nigerian experience sketched above accords with the postulate of the natural history hypothesis of skill differentials. A country on the threshold of industrialization and rapid economic development, as was Nigeria in the mid-1950s, is likely to be confronted with a shortage of skilled labor. On the other hand, a large agricultural sector at this stage provides an abundant reserve of unskilled labor. These factors would under competitive conditions result in large skill wage differentials. But an important question is why the differentials should, as in the case of Nigeria, become compressed over time. The natural history hypothesis offers an explanation.

According to the hypothesis, the nature of supply of and demand for both skilled and unskilled labor alters in the course of economic development. At a higher level of industrialization and economic development, public education, it is argued, will increase the supply of skilled labor while the supply of unskilled labor will tend to fall as a result of the contraction of the agricultural sector [2, p. 187]. This process eventually leads to a compression of skill wage differentials. In the remaining part of this section, we shall attempt to find out whether this is a plausible explanation of the secular decline of skill wage differentials in Nigeria.

Of the various factors affecting the supply of labor (skilled and unskilled) for wage employment in Nigeria over the postwar period, the most potent has been the spread of education. In 1947, just over half a million children were in primary school in Nigeria [6, 1947, p. 47]. As local communities demanded more primary education facilities for their children, the number increased. The growth became particularly marked from the mid-1950s when the Western Nigeria government took the initiative and introduced a crash program of free universal education. In the spirit of competitive politics then prevalent, other governments followed the lead and embarked upon similar expansion programs.⁵ Consequently, primary school enrollment of 1.3 million in 1954 had risen, by 1970, to 3.5 million [19, p. 143].

A concomitant of the rapid expansion in enrollment has been a sharp increase in the number of primary school graduates. Basically, two alternatives are open to these people: further education or entry into the labor market. In Nigeria, the rapid expansion in primary school education has not been matched by a commensurate increase in facilities for secondary education, hence, a relatively large proportion of primary school leavers have been entering the labor market. Of the estimated 261,000 primary school leavers in 1961, over 211,000 had to enter the labor market because further education and training facilities were available to only about 50,000 [14, p. 9]. The trend has been upwards over the years. Thus, 66,751 of primary school graduates in 1965 were absorbed by higher institutions as against 420,644 who had to enter the labor market [3, p. 45].

Such large additions to the labor market could not have constituted a problem had the school leavers been willing (as most people of roughly their age, though not the same level of education, were about a decade before) to take up farming as a career. Instead, a sort of taboo has developed against farming. Taking it as a career is now regarded as a sign of failure by school leavers [9, pp. 112, 123] [34, Feb. 2, 1963, p. 117], most of whom regard their primary school certificates as qualifications for wage employment in industrial areas. Their contempt for agriculture is reinforced and partly accounted for by the prevalent wide urban-rural income gap.⁶ Thus, these school leavers, lacking any skill, have continuously drifted to the urban centers where they constitute an ever increasing pool of unskilled labor [16, 1963-64, para. 33].

Just as postulated by the "natural history" hypothesis, economic development in Nigeria has been accompanied by a contraction of the agricultural sector. The sector accounted for 55.7 per cent of the working population in 1963 as compared with 78.6 per cent in 1952-53. This contraction of the traditional reservoir of unskilled labor has, however, not made such labor become scarcer. On the contrary, the spread of primary education and the growth of population have made the supply of unskilled labor more abundant. The significant change

⁵ For example, the Eastern Nigeria government announced its intention to introduce free primary education within days of the Western Nigeria's Plan being made known to the public. See *Daily Times* (Lagos), June 18, 1954, p. 11.

⁶ For a full discussion of urban-rural income gap in Nigeria, see [4, Chap. 5].

lies in their increasing concentration in industrial centers and their higher level of education.

The size of the pool of unskilled labor has been such that, in spite of the relatively high growth rate of the Nigerian economy, only a small proportion could be absorbed into the wage sector. Total recorded employment in establishments with ten or more persons in 1965, for example, amounted to just 569,330 [17, Table 1] while it has been estimated that there are each year, new employment opportunities in the wage sector for only about 40,000 persons [7, p. 7]. Yet, as we noted earlier, new entrants into the labor force from the primary schools alone were over 420,000 in 1965.

Much hope had been placed on rapid industrialization as a means of providing wage employment for the growing pool of unskilled labor. But development in the modern industrial sector has been so highly capital intensive that its contribution to employment has been small [4]. The growth in labor productivity arising from the improved quality and on-the-job training of the labor force has also limited the labor absorptive capacity of industrial growth. Therefore, unemployment in the country has been on the increase and the imbalance between supply and demand for unskilled labor has become accentuated.

Unfortunately, the paucity and inadequacy of available data on unemployment and vacancies do not permit a detailed quantitative assessment of the growing imbalance. The main source of information on these variables are the registers of the Ministry of Labour Exchanges. For various reasons, their employment data do not provide a reliable index of the state of unemployment in the country. The total number of the exchanges is relatively small and owing to the low probability of ever obtaining employment through them, only few of the unemployed bother to register.⁷ Notification of vacancies is not compulsory for employers, the bulk of whom do not recruit through the exchanges.

The data on the registers of the exchanges, for what they are worth, lend support to our basic conclusion on the trend of the Nigerian labor market. Table IV shows changes in the recorded numbers of unemployed and vacancies in Nigeria during the period 1956-66. Unfortunately, no comparable data exist for the period of Nigeria's political crisis, hence, the table covers up to 1966. While both vacancies and unemployment were marked by an upward trend, during the review period, the growth of the latter by far outstripped that of the former. The resultant slackening of the labor market is evident in the fall of their proportion from 8.8 per cent in 1956 to 4.1 per cent ten years later.

The figures relate to all categories of labor and understate the degree of slackening for the unskilled labor. This is so because while the unskilled forms the bulk of the growing unemployed [16, 1963-64, para. 38], relatively few of

⁷ For example, in the 1963 Urban Unemployment Survey, only 16.7 per cent of the unemployed that were interviewed in Lagos claimed to have registered at the Labour Exchanges; thus, while only 16,767 unemployed were on the registers of all the Labour Exchanges in the country as at June 30, 1963, the survey estimated the number of unemployed in Lagos alone to be 50,776 in that year. See *Urban Unemployment Survey* (Lagos: National Manpower Board, 1963) and [16, 1963-64, Appendix 1].

TABLE IV
TREND OF UNEMPLOYMENT AND VACANCIES IN NIGERIA, 1956-66
(As of March 31)

Year	Unemployed	Vacancies	Percentage Ratio (2:1)
1956	6,317	555	8.8
1958	7,293	757	10.3
1960 ^a	14,860	925	6.2
1962	15,193	676	4.4
1964	19,276	821	4.2
1966 ^b	23,904	981	4.1

Source: Various issues of [18].

^aAs of December 31.

^bAs of September 30.

the vacancies are for this category of labor. The major causal factor of the slackening of the labor market has been the growth of unemployment among school leavers, who are unskilled [14, p. 9] [25, Nov. 1964, p. 7]. Thus, the fundamental paradox of the Nigerian situation is that:

the development of education particularly free universal education since 1955 [which] was seen as a necessity to ensure rural development has, in fact, speeded up the exodus of the most talented and best educated from the farms, setting off uncontrolled migration and excessive urbanization which has shifted the unemployment problem into the cities. [20, p. 12]

The situation is such that while a huge and increasing reservoir of unskilled labor exists in wage employment centers, the rural sector is faced with a shortage of such labor [13, p. 9].

The spread of education, with the accompanying increase in the number of vocational schools and students enrolled therein, has of course had an impact on the supply of skilled labor. There is, however, no evidence to suggest that it has produced the same type or degree of worsening imbalance for the skilled labor as in the supply and demand of unskilled labor. In 1953, the Labour Department, while noting the great reserve of unskilled labor that existed reported that the "skilled worker is very much in demand, and the many efforts to increase the number and raise the standards of craftsmen are still insufficient to meet the situation" [10, 1952-53, para. 38]. Seven years later, in 1960, the same department still had to report that there "is little change in the general situation. Practically all branches continue to suffer from a shortage of artisans and skilled workers. On the other hand, unskilled labour is in ample supply and constitutes the bulk of the applicants for employment at the employment exchanges" [16, 1959-60, para. 24]. Again in 1965, referring to the "rising trend in unemployment" [16, 1964-65, para. 6] in the country, the ministry noted that, although opportunities for vocational and trade training had increased, "there was still a shortage of skilled manpower of the craft and artisan categories to meet increasing demand" [16, 1964-65, para. 51]. Admittedly, there are

unemployed artisans and craftsmen on the registers of the employment exchanges. But an overwhelming proportion of these are ungraded artisans defined as those "who either were not qualified, by reason of sheer illiteracy, to take government trade tests in their trades or failed the tests" [16, 1964-65, para. 46]. These can not be regarded as skilled in the strict sense.

The dichotomy in the market conditions for skilled and unskilled labor is also evident in the more detailed surveys of the Nigerian labor market done by the Ministry of Labour. According to one such survey, there were, between 1965 and August 1966, 420,885 job seekers most of whom were said to have no skills. In the same period, there were 18,629 vacancies for skilled workers as against only 2,891 for unskilled who constituted the bulk of the unemployed [17, p. 7]. The relative slackening of the market for unskilled labor appears to have become more pronounced since the survey.

It is quite obvious from this analysis that the secular trend of Nigerian skill wage differentials can not be explained by the changing pattern of supply and demand for skilled and unskilled labor. The decline of the differentials under conditions of growing surplus of unskilled and persistent relative shortage of skilled labor constitutes evidence of the malfunctioning of the price mechanism in the labor market.

While market forces do not adequately explain the secular behavior of Nigerian skill wage differentials, they seem to offer no explanation at all with regard to the short-run movement of the differentials. This becomes apparent when one examines the state of the labor market in the years of sharp compression in skill wage margins. One such year was 1964. Unemployment among the unskilled became such a serious problem that the National Economic Council—the highest economic policy making body in the country—had decided early in the year to appoint a committee of experts to study the problem [34, Jan. 4, 1964, pp. 22, 48]. In the year, as noted earlier, the Ministry of Labour had reported that there was still a shortage of skilled manpower of the craft and artisan categories to meet increasing demand. The fact that the same year witnessed a sharp compression of skill wage differentials suggests that labor market conditions were not a crucial factor in the compression. This in turn leads one to suspect that institutional forces have been the main causal factor of change in differentials in Nigeria.

B. *The Institutional Determinants of Skill Wage Differentials in Nigeria*

Among the institutional determinants of skill wage differentials in Nigeria, the most important are government and trade union policies and actions. These forces, by their very nature, are not readily quantifiable and hence the identification of their impact on skill differentials is not easily amenable to statistical analysis. The assessment of their impact would largely be through examination and evaluation of historical fact.

All available evidence suggests that to a considerable extent, the secular compression of skill differentials has been due to the influence of some government

actions and policies which have permitted the payment to unskilled labor of wage rates, higher than those dictated by competitive labor market conditions. Three such policies/actions deserve some mention: fair wage policy, minimum wage legislation, and government wage leadership.

Following a directive from the British Colonial Secretary, the Nigerian government issued in 1946, a circular letter to all heads of government departments requesting them to take immediate action to ensure that proper wages and conditions of labor were observed in all contracts entered into with assistance from the government [10, 1946, para. 38]. This has since remained government policy and government contracts still include a "fair wage clause" [15, p. 13]. Periodic inspections of the establishments of government contractors are carried out by the Ministry of Labour with a view to ensuring compliance with fair wage clauses.⁸ The scope of fair wages policy has increased over the years with the growth of government contracts and programs of assistance to the private sector.

Given the dominance of the government in the wage sector, fairness of wages is judged against its own wage rate which, as will be shown below, are determined without regard to the forces of supply and demand for labor. However, since in general, wage rates for semiskilled and skilled labor are higher in the private than in the public sector [12, p. 9] [32, p. 29], these rates seem to be little affected by the fair wage policy. The main effects are on unskilled labor wage rates, which are given an upward push; hence, the secular compression of skill wage differentials can be ascribed partly to the existence of the policy.

Closely allied to the role of fair wage policy is the influence of government minimum wage legislation. In the literature on skill wage differentials, prominence is often given to such legislation as a factor making for compressed differentials.⁹ Minimum wage legislation was one of the earliest social policies of advanced countries transferred to Nigeria. As early as 1943, the Wage-fixing and Registration Ordinance (No. 40 of 1943) came into force—establishing wage boards modelled on those of the United Kingdom [11, Dec. 1943, p. 4]. This was replaced in 1957 with the Wages Board Ordinance (also based on the United Kingdom Wages Council Legislation) because the procedure for fixing minimum wages under existing ordinances was considered to be "clumsy and subject to certain basic defects" [10, 1955–56, para. 124].

Under both the 1943 and 1947 ordinances, the Minister of Labour could set minimum wages in occupations and industries where he considered wages to be unreasonably low or where no adequate machinery exists for effective regulation of wages and other conditions [24, pp. 3765–69]. Thus, there is no statutory minimum wage applying generally throughout the Nigerian economy.

⁸ See, for example, [11, Sept. 1955, p. 580] [11, June 1959, p. 6] and [16, para. 17].

⁹ See, for example, H. Gunter, "Changes in the Occupational Wage Differentials," *International Labour Review*, Vol. 89, No. 2 (February 1964); J. B. Knight, "The Determination of Wages & Salaries in Uganda," *Bulletin of Oxford University Institute of Economics and Statistics*, Vol. 29, No. 3 (August 1967); and L. G. Reynolds and P. Gregory, *Wages, Productivity, and Industrialization in Puerto Rico* (Homewood, Ill.: Richard D. Irwin, 1965), p. 64.

Limited as the existing minimum wage legislation is in scope, it has never been vigorously applied. Between 1946 and 1957, only seven minimum wage orders were passed—all of them before 1952 [16, 1963–64, Appendix 7]—and since the 1957 ordinance came into force, just one more order has been passed [24, p. 2576]. The important point to stress, however, is that these orders have long become ineffective in the sense that the prevailing wage rates in relevant trades are much higher than the prescribed rates [16, 1962–63, para. 86]. Therefore, because of its limited scope and infrequent use, minimum wage legislation in the conventional sense has had little or no effect on the level of wages in Nigeria and hence, neither the size nor the trend of skill wage differentials can be attributed to its influence.

In contrast to minimum wage legislation per se, government administrative action, has had, however, considerable impact on wage levels and the pattern of skill wage differentials. Despite government's declared preference for and confidence in collective bargaining for the determination of wages [10, 1954–55, para. 20], the principle has, in practice, been repeatedly violated in the determination of employee wages. Practically all major changes in the pay of workers in the postwar period have been affected through special ad hoc quasi-judicial committees or commissions. The most important review bodies are Tudor Davies Commission, 1945; Harragin Commission, 1946; Millor Committee, 1947; Hanbury & Gorsuch Commission, 1954–55; Mbanefo & Morgan Commission, 1959–60; Morgan Commission, 1963–64; and Abebo Commission, 1970–71. The report of the latest of these ad hoc review bodies, the Udoji Commission, set up in August 1972, has not yet been published.

With years of sharp contraction in skill wage differentials more or less coinciding with years of major review, the inference can be drawn that the reviews have been a major factor in narrowing differentials in Nigeria.

It is, of course, not difficult to see a causal link between the reviews and compression of skill differentials. Wages and salaries have generally been fixed by the commissions independently of the forces of supply and demand for labor. Virtually all commissions were set up to restore the drop in real wages resulting from inflation and consequently the increases generally recommended "were arrived at by adding certain percentages to the basic rates of wages and salaries on the basis of increases (estimated) in the cost of living as ascertained from consumer price indices" [21, para. 41]. The preoccupation with cost of living increases has invariably led to attention being focused on the plight of the category of workers hardest hit by such increases—the unskilled workers. This category of workers often get the highest percentage increase in wages, hence, the fall in the wage premium for skill.

In Nigeria, as noted earlier, the government is the wage leader whose actions inevitably set the pace and pattern for the general level of wages throughout the country. The wages, institutionally determined by the government, are more or less adopted by major employers in the private sector because of trade union pressure and because the employers, mainly foreigners, will lay themselves open

to the charge of exploitation if they allow their wage rates to lag behind those of the government.

An important factor in compression of skill differentials in Nigeria has been trade union action. Owing to features and problems of trade unions in the country,¹⁰ their influence on wages through the system of collective bargaining has been negligible. There is a general consensus that whatever influence the unions have had on wages in Nigeria it has mainly been through political strength [33, p. 21] [8, p. 281]. Invariably, the periodic wage review commissions which have had so much impact on the evolution of skill wage differentials in Nigeria, were appointed under the strong pressure exerted by the unions in the form of industrial unrest [13, p. 45]. With regard to the 1963-64 wages review exercise, this point was put as follows by the commission itself:

The present commission was set up in an atmosphere charged with tension and the threat of a general strike. In fact, it is freely admitted by every side to the present inquiry that our terms of reference represent a compromise, they were drawn by the representatives of labour and that the Government agreed to them. [21, para. 1]

This statement holds true to a large extent for other wage reviews.

It is perhaps pertinent to make a distinction between the respective roles of the Central Labour Organizations and their member unions. The former have in the main spearheaded the call for wage reviews and have generally been responsible for presenting labor's case before the review bodies [16, 1959-60, para. 8] [16, 1963-64, para. 95]. Once the reports are accepted by the government, it is the individual unions that see that they are implemented by private employers [18, Mar. 1960, p. 43] [16, 1963-64, para. 13]. This distinction helps to explain why the behavior of skill differentials is the same in both private and public sectors of the economy.

Apart from the fact that the individual "trade unions which exist in private industry are not so well-equipped to be capable of framing wage claims . . . [and hence] are therefore disposed to await revision of wages by the government: and to use these [with the compression of differentials they imply] as a basis of claim for their members" [10, 1955-56, para. 95], the internal power balance of the unions has been such that they favor a policy of compressed skill differentials.

The predominant form of union organization in Nigeria is the "company" or house union embracing all employees in an establishment [16, 1964-65, para. 132]. There are as yet, not strong craft unions which could exploit the relative scarcity of skilled labor which we noted earlier. This is partly due to the fact that Nigeria is still at an early stage of industrial development [33, p. 22]. Another factor seems to have been the low esteem accorded to artisans, as com-

¹⁰ These include the problems of finance, leadership, and smallness. For detailed discussion, see, T. M. Yesufu, *An Introduction to Industrial Relations in Nigeria* (London: Oxford University Press, 1962), Chap. 5.

pared with say clerical workers, which reduces the enthusiasm of craftsmen and artisans in organizing to protect the interest of their trade. Thus, as the Ministry of Labour stated in 1956, "no guilds exist [that are] jealous of their skill" [10, 1956-57, para. 43]. In general, artisans have been willing to operate within the framework of "company" unions in which they are outnumbered by unskilled members.

The organization of skilled and unskilled workers into one "house" union in which the unskilled form the bulk of the membership [1, p. 16] has led to union policy being almost invariably weighted in favor of the latter category of workers. This tendency was evident as early as 1947. For example, in a comment on the growing quest for industrialization in Nigeria, the *Nigerian Daily Times* had noted in that year the great Russian Stalin, once said that "the key to industrial efficiency is an income scale that reflects correctly the difference between skilled and unskilled work," and added that "if a system of industrialization based on Stalin's concept were introduced, there would be strong opposition from the trade unions" [26, p. 4]. From their inception, Nigerian trade unions had favored a policy of compressed differentials.¹¹

In so far as private employers yield to post-wage review militancy of the trade unions, it is reasonable to expect their wage awards to conform to trade union policy and hence be proportionately higher for the unskilled than for the skilled workers. The fact that inflation bears hardest on unskilled workers and that private employers are expected to follow the lead of the government merely reinforces the case for awarding unskilled labor higher percentage wage increases.

Thus, the sharp compression in skill differentials in periods of wage reviews is the byproduct of the interaction of institutional forces—trade union and government actions—which have had the effect of unmooring unskilled wage rates from the labor market. Although judged by levels prevailing in advanced industrial countries, skill differentials in Nigeria are wide; they would have been wider still but for the influence of the institutional factors.

A basic feature of the Nigerian skill wage differentials has been their relative stability or slight widening in between major wage reviews. One can perhaps explain this by the pattern of trade union behavior. In Nigeria, trade union militancy and industrial disputes are at their highest level just after major wage reviews. Relative industrial peace tends to characterize inter-review periods, hence private employers enjoy some degree of latitude in fixing wages and are not under very strong institutional pressure to go against labor market forces. An important phenomenon in the market is, as we have seen, the relative scarcity of skilled labor. This may have been a crucial determinant of relative wages in between major wage reviews.

CONCLUSIONS

The main conclusions of this paper can be briefly stated. On the basis of available statistical evidence, Nigeria's skill wage differentials were shown to have

¹¹ For a discussion of trade union policy on pay differentials, see [4].

compressed over the years. Thus, the country's experience provides some support for the "natural history" hypothesis of skill differentials. The narrowing trend has, however, not been a smooth one, the compression of differentials being particularly marked in certain years and between those periods they have remained fairly stable or widened slightly.

An examination of the country's labor conditions suggests that the prevalent relatively large premium for skills is not unwarranted by market forces. The secular decline of the premium has, however, been incompatible with the underlying changes in the market forces of supply and demand for labor. Operational forces appear to have been institutional; especially government and trade union action and policy which have increasingly released unskilled labor wage rates from labor market conditions.

REFERENCES

1. AKPALA, A. *The Prospects of Small Trade Unions in Nigeria* (Enugu, 1963).
2. DUNLOP, J. T., ed. *The Theory of Wage Determination*, 2nd ed. (London: Macmillan & Co., 1964).
3. Education and World Affairs. *Nigerian Human Resources Development and Utilization* (New York: U.S.A.I.D., 1967).
4. FAJANA, F. O. "Wage Differentials and Economic Development in Nigeria" (Ph.D. thesis, University of London, 1971).
5. ————. "Employment and Wage Changes in the Nigerian Manufacturing Sector," *Nigerian Journal of Economic & Social Studies*, Vol. 15, No. 3 (1973).
6. Great Britain, Colonial Office. *Annual Report, Nigeria*.
7. HARBISON, F. H. *Critical Manpower Problems in Nigerian Agriculture and Rural Development*, Working Paper No. 7 (Consortium for the Study of Nigerian Rural Development, Michigan State University, 1967).
8. KILBY, P. *Industrialization in an Open Economy: Nigeria, 1945-1966* (Cambridge: Cambridge University Press, 1969).
9. MUELLER, P., and ZEVEERING, K. H. "Employment Promotion through Rural Development—A Pilot Survey in Western Nigeria," *International Labour Review*, Vol. 100, No. 2 (1969).
10. Nigeria, Department of Labour. *Annual Report*.
11. ————. *Quarterly Review*.
12. Nigeria, Federal Ministry of Commerce and Industry. *Industrial Labour: An Introductory Guide for Prospective Investors* (Lagos, 1962).
13. Nigeria, Federal Ministry of Economic Development & Reconstruction. *Guidelines for the Third National Development Plan, 1975-80* (Lagos, 1974).
14. Nigeria, Federal Ministry of Information, National Manpower Board. *Manpower Situation in Nigeria*, Preliminary Report, Manpower Studies No. 1 (Lagos, 1963).
15. Nigeria, Federal Ministry of Information. *The Nigerian Labour Market* (Lagos, 1967).
16. Nigeria, Federal Ministry of Labour. *Annual Report*.
17. ————. *The Employment Market Information, 1965* (1967).
18. ————. *Quarterly Review*.
19. Nigeria, Federal Office of Statistics. *Annual Abstract of Statistics* (1971).
20. Nigeria, Ministry of Economic Planning & Social Development. *The Background and Conditions of Unemployed School Leavers in Three Rural Towns of Western State of Nigeria: A Case Study (Calcolt Report)* (Ibadan, 1967).
21. Nigeria, *Report of the Commission of the Wages and Salaries and Conditions of Service of the Junior Employees of the Governments of the Federation and in Private Establishments, 1963-64 (Morgan Report)* (Lagos, 1964).
22. Nigeria, *Sessional Paper*, No. 46 (Lagos: Government Printer, 1935).

23. Nigeria, *Sessional Paper*, No. 24 of 1945, "A Ten Year Plan of Development and Welfare for Nigeria" (Lagos: Government Printer, 1946).
24. Nigeria, Wages Board. *The Laws of the Federation of Nigeria and Lagos* (1965).
25. Nigeria Employers Consultative Association. *Newsletter*.
26. *Nigerian Daily Times*, February 10, 1947.
27. OKUBOVEJO, N. A. "Economic Development and Planning in Nigeria," in *Manpower Problems and Economic Development in Nigeria*, ed. T. M. Yesufu (Ibadan: Oxford University Press, 1969).
28. PETERSON, F. *Survey of Labor Economics* (New York: Harper & Brothers, 1951).
29. REYNOLDS, G., and TAFT, C. H. *The Evolution of Wage Structure* (New Haven: Yale University Press, 1956).
30. United Africa Company. "Aspects of Technical and Vocational Training in West and East Africa," *Statistical & Economic Review*, No. 22 (January 1959).
31. United Nations, International Labour Office. *Bulletin of Labour Statistics*, 2nd quarter, October enquiry, 1970 (Geneva, 1971).
32. United States, Department of Labor, Bureau of Labor Statistics. *Labor in Nigeria*, Report No. 261 (1963).
33. WARREN, W. M. "Urban Real Wages and the Nigerian Trade Union Movement, 1939-60," *Economic Development and Cultural Change*, Vol. 15, No. 1 (October, 1966).
34. *West Africa*.