

## THE EMPLOYMENT PERFORMANCE OF DEVELOPING COUNTRIES DURING THE 1970s

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### I. INTRODUCTION

**I**N a recent article Peter Gregory [2] investigated the proposition that "employment conditions" in LDCs had deteriorated during the decade ending in the early 1970s. Whilst recognizing that the data base for such an assessment was limited in both quantity and quality, he found that for none of the four criteria examined was he able to discern "unambiguous evidence of deterioration." He thus concluded that the proposition was not supported by the data.

Space prevents us undertaking an extensive survey of literature, but among the formidable amount of relevant recent works, three references stand out, namely, Berry and Sabot [1], Squire [6], and International Labour Office [4]. These emphasize, among other things, the rapid increase in developing country labor forces between 1980 and 2000 (450 million compared with 277 million between 1960 and 1980); the rapid decline in the share of the labor force in agriculture, which fell from 73 to 59 per cent between 1960 and 1980; and the rapid increase in school enrollment ratios. How will the labor markets of developing countries respond to the unprecedented changes likely to occur in the next two decades? Can they cope? Clearly, the monitoring of employment variables in order to determine whether and/or how rapidly developing countries' absorptive capacities are increasing, is an important task.

The objective of this article, then, is to extend Gregory's study to the early 1980s, using essentially the same criteria and source but aided by a wider range of LDCs for which employment data are available. The structure of the article is as follows: first, we discuss the available data and Gregory's approach; second, we present estimates of employment performance during the 1970s and compare them with those for the 1960s; finally, we draw conclusions.

### II. THE DATA AND THE CRITERIA

Gregory used four criteria by which to judge whether or not employment conditions had changed, all of which were derived from the International Labour Organization's *Year Book of Labour Statistics* (hereafter referred to as the *Year Book*), namely,

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TABLE I  
SUMMARY OF GREGORY'S CRITERIA AND REASONING

Criteria	Reasoning
1. Sectoral distribution of employment	A transfer of labor from agriculture to nonagricultural occupations indicates an improvement in the average employment situation and living standards.
2. Occupational distribution of employment	'Explosive' growth in sales and services occupations indicates increased numbers employed in low-productivity/low-income jobs.
3. Employment status of employed labor force	Rapid growth in unpaid family workers or the self-employed indicates a deterioration in employment conditions.
4. Unemployment rate	Increasing unemployment rates indicates deteriorating labor force conditions.

1. Changes in the distribution of employment by sector;
2. Changes in the distribution of employment by occupation;
3. Changes in the employment status of the labor force; and
4. Changes in unemployment rates.

Table I summarizes the reasoning Gregory applied to each of these criteria. Thus, for example, since agricultural occupations are normally less well paid than nonagricultural occupations, a movement out of agriculture (which may be either an absolute reduction in the numbers in agriculture, or a rate of growth of employment in agriculture below that of the work force as a whole so that agriculture's share in the total work force declines) suggests an improvement in conditions for the employed.

It is appropriate to note several points (some made by Gregory) concerning the data. First, attempts at international aggregation are totally unjustified, given differing definitions, methods of collection, etc., and will produce meaningless totals. This does not, however, apply to comparisons between rates of change over time, that is, provided definitions and coverage remain constant, it is legitimate to compare a 10 per cent fall in, say, unemployment in one country with a 5 per cent rise in another, even though the methods of collection used in the two countries are different. Second, we have been at pains to compare like with like. Where the relevant data at the start and end of the 1970s was collected by different methods, or where definitions had altered, it was either omitted or a shorter period chosen. Third, our use of the term "the 1970s" needs clarification: ideally, we took a measure in 1970 and compared it to the most recent data available from the *Year Book*, which in some cases was for 1982.<sup>1</sup> For the many cases where a less than ideal set of data was available, we adopted as working rule that only countries with a data run covering five years or more during the 1970s would be included. A blank entry indicates that data were either not available or not comparable, e.g., because of a definitional change affecting one or more components of a data entry for a country. We have followed

<sup>1</sup> The most recent data source was the International Labour Office's *Year Book of Labour Statistics 1983* (Geneva, 1983).

Gregory in presenting rates of change in our tables rather than absolute numbers, although we have used weighted averages (weighted according to population) in some instances. One possible problem with this approach, in respect of comparisons between the 1960s and the 1970s, is that the additional countries for which data are available in the later decade probably include a number of smaller low-income countries; the small base from which, for example, their secondary and tertiary employment commenced, may inflate the relevant growth rates. Use of median rates reduces but does not eliminate this problem.

Finally, there is some lack of clarity in the *Year Book*, and therefore by Gregory, between the concepts of labor force and employment. The former is normally, but not invariably, used to include both the employed plus the unemployed. Hence the rates of expansion of the labor force and its sectors reported in this article incorporate the unemployed. Thus the weight to be given to the fourth criterion should perhaps be greater than that given to, say, the first two criteria.

### III. EMPLOYMENT PERFORMANCE DURING THE 1970s

#### *Criterion 1: Sectoral distribution of the labor force*

Table II reports rates of change of the labor force by sector for forty-six countries, with combined populations of some 1,170 million people, classified according to income, category, and region. In order to facilitate comparison with the 1960s, mean values, both unweighted and weighted according to population, are presented for each income/regional grouping and for the countries as a whole. Normally, however, we prefer to use medians rather than means, especially for criteria where data is available for relatively few countries. Following Gregory, the primary sector contains only agricultural activity; the secondary sector includes mining, manufacturing, electricity-water-gas, construction, and transportation-storage-communication; the tertiary sector includes trade-restaurants-hotels, finance-insurance-real estate-business services, and community-social-personal services. A potentially important weakness of this measure of employment performance is that it takes no account of the number of hours worked. If, as in developed countries, there is an increasing trend toward part-time employment, these data may give an exaggerated picture of improvement.

The overall weighted mean rate of increase of the labor force during the period was 3.8 per cent per annum.<sup>2</sup> The agricultural sector grew at around half this rate and therefore declined in relative terms as a source of employment. The secondary sector grew at a similar rate to the labor force as a whole and the tertiary sector grew the most rapidly at 4.8 per cent per annum. The ordering

<sup>2</sup> The World Bank's *World Development Report* uses a different method for calculating rates of growth of labor force, based on the Bank's population projections and ILO estimates of activity rates. The results often differ from the rates of employment growth presented in Table II, and this is particularly so for low-income countries. Nonetheless, there is a positive and significant correlation (albeit not strong at 0.30) between the rates of growth presented in Table II and the rates for the same countries tabulated in the *World Development Report* of 1983 for the period 1970 to 1981.

TABLE II  
RATES OF CHANGE OF TOTAL AND SECTORAL LABOR FORCES

Category, Region, and Country	Years	Total	Primary	Secondary	Tertiary
(%)					
Low-income countries					
Africa and the Middle East					
Benin	1973-78	8.8	6.8	13.4	6.6
Gambia	1973-79	9.7	8.0	7.5	13.6
Kenya	1970-82	4.0	0.7	5.0	5.7
Sierra Leone	1974-81	1.7	3.0	0.3	4.1
Tanzania	1970-80	4.9	1.8	5.4	7.5
Subtotal (weighted mean)*		4.7	2.0	5.5	6.5
(unweighted mean)		5.8	4.1	6.3	7.4
Asia and the Pacific					
Bangladesh	1975-81	6.6	3.3	6.7	7.4
India	1975-82	2.6	1.8	2.6	2.6
Pakistan	1972-82	3.6	2.5	2.6	3.6
Sri Lanka	1973-80	0.3	-0.8		5.6
Subtotal (weighted mean)		3.1	2.0	3.0	3.2
(unweighted mean)		3.1	1.7	3.7	4.8
Latin America and the Caribbean					
Haiti	1973-82	0.3	-1.0	1.8	4.0
Middle-income countries					
Africa and the Middle East					
Botswana	1973-81	9.6	0.3	11.0	9.8
Cameroon	1973-81	9.8	10.9	14.7	3.8
Egypt	1971-79	1.6	-1.3	-2.6	3.2
Gabon	1970-79	11.9	7.3	15.1	8.3
Ghana	1973-79	2.6	5.1	0.7	3.2
Liberia	1971-79	13.4	18.3	5.8	19.4
Libya	1973-78	7.5	2.7	11.4	6.6
Mauritius	1973-82	2.3	-1.0	6.2	2.9
Swaziland	1970-81	5.9	3.5	7.6	7.3
Tunisia	1975-80	4.5	1.1	7.3	5.1
Zambia	1970-81	0.9	-0.7	-0.3	2.9
Zimbabwe	1971-82	1.4	-1.3	2.4	2.8
Subtotal (weighted mean)		3.3	1.6	1.8	4.0
(unweighted mean)		6.0	4.6	6.6	6.3
Asia and the Pacific					
Brunei	1972-82	1.5	-11.6	4.7	12.3
Fiji	1970-79	4.9	-3.1	4.4	5.6
Guam	1973-81	1.6		-5.1	0
Korea	1971-82	3.3	-0.5	7.4	5.5
Malaysia	1970-80	3.4	0.7	4.0	4.7
Philippines	1971-78	4.1	4.4	3.2	4.2
Singapore	1973-80	4.3	-4.2	5.5	3.6
Thailand	1972-80	4.3	4.0	4.5	5.2
Subtotal (weighted mean)		3.8	2.4	4.7	4.7
(unweighted mean)		3.4	-1.5	3.6	5.1
Latin America and the Caribbean					
Bolivia	1971-82	3.0	2.7	2.3	4.1

TABLE II (Continued)

Category, Region, and Country	Years	Total	Primary	Secondary	Tertiary
Colombia	1975-81	8.3	5.0	8.5	8.2
Cuba	1971-77	3.8	0.7	5.6	4.4
Chile	1975-81	3.1	-2.3	2.5	5.6
French Guinea	1973-79	6.1	9.9	3.6	6.6
Honduras	1973-82	2.4	1.7	3.8	3.2
Jamaica	1969-81	1.8	1.1	7.7	2.4
Montserrat	1975-82	2.2	-3.9	9.7	2.3
Nicaragua	1973-80	6.4	13.9	2.3	8.8
Panama	1970-79	2.2	-0.2	3.7	3.3
Paraguay	1975-82	3.7	1.9	5.4	5.0
Peru	1973-81	2.7	0.9	2.7	4.9
Puerto Rico	1970-82	0.1	-5.1	-1.6	1.8
St. Kitts Nevis	1973-82	1.7	1.1	3.9	1.4
Trinidad and Tobago	1970-81	1.8	-5.3	2.9	3.6
Venezuela	1975-81	3.6	-1.8	5.8	4.0
Subtotal (weighted mean)		4.4	1.4	4.9	5.5
(unweighted mean)		3.3	1.2	4.3	4.7
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All Countries					
Total (unweighted means)	1970s	4.2	2.3	5.2	5.6
(weighted mean)	1970s	3.8	2.0	3.9	4.8
(weighted mean)	1960s	2.5	1.1	4.3	4.3

Source: [3, various issues]

- Notes: 1. Income categories are based on those presented in the World Bank's *World Development Report* for 1978. Low-income developing countries were then defined as having a per capita GNP of U.S.\$250 or below.
2. In this and following tables, Korea refers to the Republic of Korea and Malaysia to Peninsular Malaysia.

\* Weighted averages were calculated using population figures taken from the World Bank's *World Development Report* for 1978.

reported for the total is true for each regional/income group:<sup>3</sup> primary sector growth was below the growth of total work force, and tertiary growth exceeded that of the secondary sector. In no regional/income group, however, was tertiary sector growth "explosive" in comparison with the growth of total labor force.

When we compare our results with those of Gregory (the last two rows of Table II), we find that employment growth during the 1970s was more rapid in total (3.8 per cent per annum compared with 2.5). Growth in the primary and tertiary sectors was more rapid in the 1970s but secondary sector employment growth was slower. During the 1970s, fifteen countries (one-third) had an absolute decline in the numbers employed in agriculture, with all but one of these coming from the middle-income country category. By contrast, only seven of Gregory's sample of thirty-nine countries showed an absolute decline; again,

<sup>3</sup> The one exception are the middle-income Asian countries, which had equal rates of growth in the tertiary and secondary sectors.

these were concentrated among higher-income developing countries. Further, whereas in no country in the 1960s did employment growth in the primary sector exceed that in the secondary sector, this did occur in seven countries in the 1970s.

During the 1960s, average secondary employment growth equalled tertiary growth whereas, in the 1970s, tertiary growth was considerably greater. In the nineteen countries (41 per cent of the sample) during the 1970s where secondary employment growth exceeded tertiary growth, secondary sector employment growth rates were high (the median was 7.3 per cent) and tertiary growth was still strong with a median of 4.0 per cent per annum. Thus, where secondary employment growth exceeded tertiary, it was largely as a result of rapid growth in the former.

Some interesting inter-regional differences may be noted for the 1970s. African low-income countries recorded more rapid rates of growth in employment in all sectors than did middle-income African countries, probably because of the small bases from which the former expanded. The opposite was true for Asia with the low-income Asian group, comprising the low-income countries of the Indian subcontinent, producing less rapid employment growth than their middle-income counterparts. Latin American middle-income countries had the second most rapid growth in employment, after low-income Africa, and the slowest growth in primary sector employment.

In summary, overall employment growth was considerably higher in the 1970s than in the 1960s; primary and tertiary growth were more rapid in the 1970s, but secondary growth was less rapid. There is no evidence of an explosive growth of tertiary sector employment. The general suggestion of these data is of an improvement in employment conditions, as relatively more employment is concentrated in the better-paid secondary and tertiary sectors.

#### *Criterion 2: Occupational distribution of the labor force*

Gregory's discussion of the occupational distribution of the work force concentrated on the possibility that marginal employments, concentrated in the sales and services occupational groups, had grown very rapidly. This, along with data on employment status changes, would be prima facie evidence of a decline in the quality of employment. For twenty countries during the 1960s, he found that the white collar and production groups increased most rapidly, and that agriculture had increased (in all but one country) less rapidly than the labor force as a whole. The sales and services groups grew more rapidly than aggregate labor force, but less than white-collar and production occupations. He also analyzed changes in the unclassified category, in case increases in marginal employments were concentrated there. He concluded that his data did not suggest explosive growth in marginal employments.

It is important, we believe, not to view an expansion of tertiary employment as inevitably leading to a worsening of employment conditions. As Squire [6, p. 136] notes, to treat the tertiary sector simply as a source of residual employment "neglects the very obvious point that there must be a corresponding demand for the services or else they would not be purchased; more important, it neglects

the *growth* in demand for services, which can be expected as the economy develops." Squire goes on to distinguish between old (e.g., street hawking and petty trading) and new services (e.g., transport and communications, banking and finance, and government services). As income rises, an increasing proportion of total tertiary employment will be of the new services type. Further, almost 60 per cent of tertiary sector employment in developing countries is made up of intermediate service employment, and this proportion will probably increase as industrial and, especially, agricultural production expands.<sup>4</sup> Clearly, there is a need for statistical compilations such as the *Year Book* to attempt to distinguish between types of service occupations, e.g., between employment in old and new service occupations.

Table III reports rates of growth in the different occupational groups for the 1970s, and indicates that again, white-collar occupations grew the most rapidly. Sales occupations moved into second place, followed very closely by production. Services employment growth was slower and was about equal to total labor force growth. Agricultural employment growth was negative and absolute agricultural employment rose in seven and fell in thirteen countries. For the 1970s, as for the 1960s, there is no suggestion of explosive growth in sales and service occupations, such as might harbor large numbers of very low-paid workers.<sup>5</sup> Small though the number of countries is, the data also suggest regional differences. For Asian and Middle Eastern countries, the reduction in agricultural employment and the growth in production occupations were both greater than for Latin American and Caribbean countries. Total labor force growth was greater in the former group.

The last two rows of Table III allow a comparison of the 1960s with the 1970s. In general, similar trends occurred, but in the context of a more rapid expansion of total labor force in the later decade. White-collar and production occupations grew most rapidly, and more rapidly than total labor force. Sales occupations also grew more rapidly than total labor force. Service occupations grew less rapidly, at roughly the same rate as total labor force. Agricultural occupation growth rates in the 1970s became negative. A very similar pattern emerged when comparisons were made between the nine countries common to both samples, except that the median rate of growth of sales employment for the 1960s jumped to 5.1, compared with 3.1 for all twenty countries. Again, these data suggest an improvement in employment conditions during the 1970s.

### *Criterion 3: Employment status of the labor force*

Measurement of rates of change of employment status, reported in Table IV, complement data on occupational change. Our data is more straightforward

<sup>4</sup> On this point, see [5, pp. 404-7].

<sup>5</sup> Gregory also considered the possibility that marginal workers might be placed in the "not classified" category and that therefore sales and services categories figures might mask rapid growth in the number of such workers. During the 1970s, not-classified workers fell by 3.5 per cent per annum, which suggests that no significant bias resulted from placing people in that category.

TABLE III  
ANNUAL RATES OF GROWTH IN EMPLOYMENT BY OCCUPATIONAL GROUP

Category, Region, and Country	Years	White Collar	Sales	Services	Production	Agric- culture	Not Classified	Unemployed	Total
(%)									
<b>Low-income countries</b>									
<b>Asia and the Pacific</b>									
Indonesia	1971-80	0.5	5.6	4.3	8.4	2.1		8.1	3.2
Pakistan	1972-83	6.8	2.0	5.8	5.2	2.6		9.1 <sup>a</sup>	3.6
<b>Middle-income countries</b>									
<b>Africa and the Middle East</b>									
Algeria	1966-77	10.0	4.1		8.0	-5.9	29.4	1.8	2.5
Egypt	1975-80	15.8	1.0	2.2	3.2	-1.1		8.2	2.2
Iran	1966-76	9.6	1.7	-1.6	5.1	1.4			2.6
Seychelles	1971-77	5.5	21.3	14.4	3.8	-0.9	-40.0		4.1
Syria	1973-79	12.5	5.0	9.0	11.5	-3.7		3.3	4.3
<b>Asia and the Pacific</b>									
Hong Kong	1971-76	5.7	5.3	3.7	3.5	-4.4	-8.1	0.1	3.4
Korea	1970-80	6.6	4.1	2.8	5.0	-0.8	-39.9	15.1 <sup>a</sup>	4.2
Malaysia	1970-80	7.9	4.2	3.9	6.2	-0.5	7.1		3.3
Philippines	1974-81	6.7	5.1	9.1	0.6	1.1	-28.5		2.5
Singapore	1976-82	6.0	2.3	5.4	6.4	-6.8	1.1		4.3
Thailand	1973-80	8.2	3.5	4.1	26.7	3.7		12.6	6.1
<b>Latin America and the Caribbean</b>									
Bermuda	1970-80	3.8	-2.2	0.7	-2.9	1.4	22.7	19.3	1.4
Guatemala	1973-81	4.2	1.4		1.2	0.5			1.2
Panama	1970-80	5.4	0.3	0.4	1.4	-2.6	9.4		1.2
Peru	1972-81	6.6	5.6	2.0	1.4	2.0	6.7	19.3	3.8
Puerto Rico	1975-83	0.2		0.1	0.2	-2.9			0.9
Trinidad and Tobago	1973-81	3.7	0.5	-0.7	3.3	-2.9	-13.6	-6.6	1.5
Venezuela	1975-81	7.4	5.6	0.7	4.2	-0.9	-9.9	-0.9	3.5
<b>All countries</b>									
Median values	1970s	6.6	4.1	3.3	4.0	-0.9	-3.5	3.3 <sup>b</sup>	3.3
	1960s	5.4	3.1	3.3	3.4	1.0	1.1		2.7

Source: [3, various issues]

<sup>a</sup> Total unemployed; all other entries in this column refer to persons who had been previously employed.

<sup>b</sup> Includes only estimates of unemployment amongst those who had not been previously employed.

TABLE IV  
ANNUAL RATES OF CHANGE OF EMPLOYMENT STATUS

Category, Region, and Country	Years	Employers and Own-account Workers	Em- ployees	Unpaid Family Workers	Not Classified	Total
(%)						
Low-income countries						
Asia and the Pacific						
Pakistan	1972-83	3.0	10.5	3.9	12.7	5.1
Middle-income countries						
Africa and the Middle East						
Iran	1966-76	0.6	3.6	4.2	3.0	2.6
Réunion	1967-82	0.9	1.7	1.4	36.8	4.1
Seychelles	1971-77	0.9	3.3	45.9		5.1
Syria	1973-79	3.3	10.6	-6.2	-5.7	4.3
Asia and the Pacific						
Hong Kong	1971-81	4.2	4.3	2.7	4.0	4.2
Korea	1974-82	2.6	5.4	-1.9	3.6	2.8
Malaysia	1970-80	3.0	5.3	-5.2	-6.0	3.0
New Caledonia	1969-76	3.0	3.5	-1.1	33.8	3.7
Philippines	1974-81	3.3	5.3	-0.4		2.5
Singapore	1970-80	2.1	6.0	1.3	-6.5	4.4
Thailand	1973-80	3.1	5.4	4.1	15.1	4.1
Western Samoa	1971-76	-1.3	2.8	20.2	-31.4	0.2
Latin America and the Caribbean						
Bermuda	1970-80	9.1	-5.6	13.5	57.0	14.1
Brazil	1970-80	1.3	5.9	-2.5	61.4	4.0
Guatemala	1973-81	2.1	0.9		-12.2	1.2
Panama	1970-80	-3.2	2.6	-1.7	11.6	1.2
Peru	1972-81	3.1	2.1	9.8	13.2	3.8
Puerto Rico	1975-83	0.2	-2.5	2.2	42.9	0.9
St. Pierre et Miquelen	1967-74	-3.1	3.1	-11.1		2.0
Trinidad and Tobago	1973-81	1.6	2.3	-5.4	-7.5	1.5
Venezuela	1975-81	4.0	-2.4	-1.1	-0.4	3.5
All countries						
Median values		2.4	3.4	1.3	4.0	3.6

Source: [3, various issues]

than that presented by Gregory, because the form of data available in the *Year Books* have altered. This means, in particular, that the self-employed category cannot be used as an indicator of changing employment conditions, since it now lumps together employers and own-account workers. The rate of change of unpaid family workers for twenty-two countries during the 1970s suggests an improvement in employment conditions. The rate was 1.3 per cent per annum, the lowest rate of increase of any category and 64 per cent below the rate for the total work force. An absolute decline in unpaid family workers was recorded for ten countries, and in only five cases did the rate of increase of these exceed that of the total work force.

*Criterion 4: Unemployment rates*

We now turn to the most specific indicator of changing employment conditions—the rate of open unemployment. The rate for the early 1980s was estimated at 6.0 per cent for all developing countries: the range, however, was from 3.4 per cent for middle-income Asian countries to 14.8 for low-income African and Middle East countries [3, p. 7]. We examine annual percentage changes in the absolute numbers of unemployed (available for fifty-five countries), and compare unemployment rates at the start and end of the 1970s for nineteen of these countries. We are not concerned that the methods used to collect these data vary considerably between countries; the identification of trends only requires a consistent research method within the country over a minimum of five years.

However, the criterion does suffer from some important limitations, at least in the form in which it is often collected in developing countries and subsequently reported in the *Year Book*. First, no account is taken of the duration of unemployment or its composition as regards age, sex, education, and marital status. If the same number of persons are unemployed at two points of time, but the average duration is greater at the later point, then the employment situation may be considered to have worsened.<sup>6</sup> If the composition of unemployment alters so that more (older) male breadwinners are unemployed, the welfare implications are more serious than if, say, the unemployment is more concentrated among single young people.<sup>7</sup> Again, if the unemployed includes large numbers of well-educated people from upper-income families waiting for a preferred job,<sup>8</sup> the implications are less serious than if the unemployed are willing to take virtually any job. Second, the unemployment rate does not reveal whether the absolute numbers of unemployed have altered. If the participation rate and hence labor force size increases, unemployment rates at two points of time may be the same but the numbers unemployed may be larger at the later date. Third, there is no measure of the underemployed, both visible, in the sense of wanting to work more hours, and invisible in that they earn below the level of some poverty line.<sup>9</sup> The data at our disposal prevent us tackling these limitations, except that we do have data on numbers unemployed for a number of countries.

The data in Table V indicate a distinct worsening in unemployment in the fifty-five developing countries examined: the *numbers* unemployed rose in forty-five cases and fell in only ten. The median increase in unemployment numbers

<sup>6</sup> We are not suggesting that the unemployed are a "stagnant pool" composed of the same group of people (although some groups may remain in the pool much longer than others before finding employment). A more realistic interpretation of the increased unemployment numbers would take account of the longer average time spent awaiting first jobs, and time spent between jobs. Nonetheless, the size of the pool at any point of time certainly expanded during the 1970s.

<sup>7</sup> For a succinct statement of the view that unemployment is important because of its implications for poverty, see [9]. For recent empirical work on the relationship between poverty and unemployment, see [8].

<sup>8</sup> For a recent assessment of "luxury unemployment," see [7].

<sup>9</sup> Squire [6, pp. 69–74] presents estimates of invisible underemployment in eight developing countries and three regions for the early 1970s. The estimates range from 14 to 60 per cent of the employed labor force.

TABLE V  
CHANGES IN NUMBERS OF OPEN UNEMPLOYED AND IN UNEMPLOYMENT RATES

Category, Region, and Country	Years	Open Unemployment Numbers		Unemployment Rate (%)	
		Overall Percentage Change	Annual Percentage Change	Start of Period	End of Period
Low-income countries					
Africa and the Middle East					
Madagascar	1975-82	94.1	9.9		
Malawi	1968-74	21.3	3.3		
Niger	1970-78	435.5	23.3		
Asia and the Pacific					
Burma	1970-82	759.1	19.6		
India	1970-82	400.4	14.3		
Indonesia	1973-82	336.1	17.8		
Pakistan	1971-82	-23.4	-1.7		
Sri Lanka	1970-75	36.9	6.5		
Middle-income countries					
Africa and the Middle East					
Cameroon	1970-81	118.4	7.4		
Egypt	1970-80	170.6	10.5	2.4	5.2
Ghana	1970-82	41.8	3.0		0.7
Libya	1970-78	-23.3	-3.7		
Mali	1969-74	4.3	0.9		
Mauritius	1970-82	250.0	11.0		
Morocco	1970-79	-40.3	-5.6		
Mozambique	1968-73	-8.8	-1.8		
Nigeria	1970-82	21.0	1.6		
Réunion	1973-82	255.8	15.2		
South Africa	1970-80	158.3	10.0		
Tunisia	1970-82	22.4	1.7		
Upper Volta	1970-82	565.7	17.0		
Zambia	1970-75	16.5	3.1		
Asia and the Pacific					
American					
Samoa	1974-82	11.9	1.4	12.2	11.5
Brunei	1975-80	38.5	6.7		
Cyprus	1970-82	129.3	7.1	1.1	2.8
Fuji	1970-79	-27.3	-3.0		
Guam	1974-82	20.7	2.4	9.6	10.2
Hong Kong	1975-82	-46.8	-8.6	9.1	3.8
Iraq	1970-79	56.3	5.1		
Korea	1970-82	49.5	3.1	4.5	4.4
Malaysia	1974-80	-11.6	-1.2	7.4	5.7
New Caledonia	1973-82	59.8	7.4		
Philippines	1970-82	53.3	3.6	4.8	5.3
Thailand	1972-80	138.8	11.0		0.8
Latin America and the Caribbean					
Argentina	1970-82	39.4	2.8	5.6	5.7
Bahamas	1973-79	67.9	9.0	8.6	14.3

TABLE V (Continued)

Category, Region, and Country	Years	Open Unemployment Numbers		Unemployment Rate	
		Overall Percentage Change	Annual Percentage Change	Start of Period	End of Period
Barbados	1976-82	-8.3	-1.4	15.6	13.8
Brazil	1970-81	179.0	9.8		
Chile	1970-82	269.7	11.5	7.1	9.4
Columbia	1975-81	47.0	6.7	10.5	8.1
Costa Rica	1976-82	92.0	11.5	6.2	9.4
French Guinea	1970-81	727.3	21.4		
Guadelope	1970-80	2096.9	36.2		
Guatemala	1970-82	96.9	5.8		
Guyana	1970-82	421.8	14.8		
Honduras	1976-82	26.9	4.1		
Jamaica	1969-81	98.6	5.9		
Panama	1970-79	69.0	9.2	6.6	8.8
Peru	1970-82	71.5	5.6		7.0
Puerto Rico	1970-82	147.6	7.9	10.8	22.8
Surinam	1970-82	226.7	10.4		
Trinidad and Tobago	1970-81	-3.2	-0.3		14.4
Uruguay	1979-81	-5.9	-0.6	7.5	6.6
Venezuela	1970-82	67.7	4.4	6.3	7.1
Virgin Islands	1975-82	34.9	4.1		7.8
All countries					
Median values		67.7	5.9	6.9	7.1

Source: [3, various issues]

was 67.7 per cent for the 1970s, the median annual rate of increase being 5.9 per cent. In over a third of countries, the number of unemployed more than doubled, with such increases more likely to occur in low-income countries. These had a median annual percentage increase in unemployment of 12.1 per cent, compared with 5.5 for middle-income countries. Among the middle-income regions, the rate of increase was greatest for Latin America and the Caribbean (6.7 per cent) compared with rates of 3.4 and 3.1 for Asia and the Pacific and Africa respectively.

Change in unemployment *rates* indicate a similar trend, although less pronounced. Rates rose in fourteen and fell in five countries, and the median rate rose from 6.9 to 7.1 per cent. This modest increase in the unemployment rate, despite substantial increases in the numbers of unemployed, is explained by the rapid growth in total employment, as reported in Table II.

#### Criterion 5: Real wages

An important aspect of employment conditions, and one not examined by Gregory (probably because of limited data), is the movement of real wages. Table VI reports estimates of percentage changes in real wages during the 1970s

TABLE VI  
MOVEMENT OF REAL WAGES IN AGRICULTURAL AND  
NONAGRICULTURAL ACTIVITIES

Category, Region, and Country	Years	Percentage Change in Real Wages	
		Nonagricultural Activities	Agricultural Activities
Low-income countries			
Africa and the Middle East			
Burundi	1973-82	-18.8	-19.8
Kenya	1973-82	-23.7	-10.6
Sierra Leone	1973-81	-35.7	
Tanzania	1973-80	-35.6	-29.2
Asia and the Pacific			
Bangladesh	1973-81		-9.0
Burma	1973-81		-28.6
India	1973-82		6.5
Pakistan	1973-81		24.2
Sri Lanka	1973-82	14.0	-9.0
Median values		-27.7	-9.8
Middle-income countries			
Africa and the Middle East			
Cameroon	1976-81	1.7	
Egypt	1973-78	13.1	
Ghana	1975-79	-68.8	-69.1
Mauritius	1973-81	21.0	14.6
Nigeria	1975-80	-34.3	43.7
Swaziland	1976-81	1.4	67.6
Zambia	1973-80	-16.4	3.9
Zimbabwe	1973-82	31.5	95.3
Asia and the Pacific			
Brunei	1973-79	3.0	
Fiji	1973-80	15.5	18.1
Korea	1973-79	97.7	116.8
Malaysia	1973-79		11.7
Papua New Guinea	1973-80	-10.4	
Philippines	1973-80	-32.1 <sup>a</sup> -41.2 <sup>b</sup>	
Samoa	1976-81	-32.9	
Singapore	1975-82	49.0	
Latin America and the Caribbean			
Bolivia	1973-81	-31.8	
Chile	1975-82		-98.0
Costa Rica	1973-81	-31.3	141.7
Cuba	1973-80	18.5	9.3
El Salvador	1973-78		-18.2
Guyana	1973-81	-55.1	7.1
Honduras	1973-82	74.2	
Mexico	1975-81		15.8

TABLE VI (Continued)

Category, Region, and Country	Years	Percentage Change in Real Wages	
		Nonagricultural Activities	Agricultural Activities
Netherlands Antilles	1973-82	0.3	
Nicaragua	1973-80	-15.9	5.7
Peru	1973-79	-43.3	
St. Lucia	1975-82	75.6	46.8
Uruguay	1973-81	-34.7	-20.6
Venezuela	1973-81	-2.6	
Median values		0.3	13.2
-----			
All countries			
Median values		-6.5	8.2

Source: [3, various issues].

<sup>a</sup> Skilled workers.

<sup>b</sup> Unskilled workers.

for agricultural and nonagricultural activities in forty developing countries. The changes reported here are based on a fairly crude measure of real wages—the money wage index deflated by a consumer price index. No allowance has been made (or can be, given the data) for changes in the composition of the baskets of goods and services on which the price indices are based. Nor is there allowance for the different baskets likely to be consumed by agricultural and nonagricultural workers. The price indices are almost invariably based on urban consumption patterns and price changes. Agricultural workers are likely to have more access to some cheaper (e.g., self-produced) foodstuffs, for example, but for other items they may pay a good deal more. There is no way of estimating how such factors will affect movements in the cost of living. Despite these limitations, we believe that the real wage data we have are distinctly better than nothing.

It is difficult to perceive clear trends from data presented in Table VI, but the following seem important. First, the position of agricultural workers during the 1970s seems to have improved more than that of nonagricultural workers. In nonagriculture, roughly equal numbers of countries recorded rises and falls in real wages; in agriculture, there were nine falls and seventeen rises. In terms of median changes, agricultural real earnings rose by 8.2 per cent, whereas those in nonagriculture fell by 6.5 per cent. This surprising result may reflect the determination of some countries to reduce rural-urban income disparities, or it may be a response to rural labor shortages. Second, workers in middle-income countries did much better than those in low-income countries. Nonagricultural real earnings fell by a median value of 23.7 per cent in low-income countries, compared to a 0.3 per cent rise in middle-income countries. The respective figures for agriculture were -9.8 and 13.2. Third, for the eighteen countries where data on both agriculture and nonagriculture was available, earnings in both sectors

rose in eight countries and fell in five, and fell in nonagriculture/rose in agriculture in the remaining five.

#### IV. CONCLUSIONS

We now draw together the rather disparate results from the five criteria used to measure employment performance during the 1970s, remembering that Gregory found no clear-cut evidence of a worsening of employment conditions from any of his four criteria. Our results are summarized in Table VII, and the remarks there may be considered as both a comparison with the 1960s and a record of trends during the 1970s. For example, the improvement for criterion 1 indicates both that the growth rates of total labor force (for two of the three sectors) were faster in the 1970s, and that the relative growth rates were such as to place more workers in better-paid employments.

TABLE VII  
SUMMARY OF RESULTS

Criterion	Result
1. Sectoral distribution	Improvement
2. Occupational distribution	Improvement
3. Employment status*	Improvement
4. Unemployment	Worsening
5. Real wages	Indeterminate

\* Comparison between the 1960s and 1970s was not possible in the case of the employment status criterion.

The first three criteria suggest an improvement in employment conditions, in the sense that the trend away from low-paid employments continued during the 1970s. The real wage criteria gives a mixed set of results and is therefore labelled interminate, although perhaps tending toward an improvement. However, the unemployment criteria, particularly the trend in the absolute number of unemployed, shows a definite worsening. The rate of growth of the labor force, then, outstripped the rate of creation of jobs during the 1970s. Employment conditions *for the employed* improved during the 1970s, but the numbers of unemployed rose sharply. The data, then, give cause for "neither despair nor satisfaction." They do give cause for concern that the increasing numbers of entering the labor force—from the larger population, from agriculture, and through the school system—mean that the unemployed are going to spend longer periods without work.

Finally, we have felt uneasy about the aggregate approach necessarily adopted in this article. National studies will allow researchers to judge the seriousness of the unemployment situation for any particular country, and will be of much greater use to local policymakers.

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