EMPLOYMENT PRODUCTIVITY AND WAGES IN THE PHILIPPINE LABOR MARKET AN ANALYSIS OF TRENDS AND POLICIES

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EXECUTIVE SUMMARY

The present government's concern is aimed towards poverty alleviation, productive employment generation, income redistribution and sustained economic growth. Given these development goals, issues concerning employment, wages and productivity which have gained prominence through the years should be dealt with. Rising levels of unemployment and underemployment along with declining productivity and real wages continue to plague the economy. Likewise, the balance of payments problems and the increasing indebtedness further aggravate the worsening economic condition. These major problems began to attract much attention for there arose dissatisfaction among the populace with the upsurge in the incidence of poverty and the occurrence of other related problems.

With the task of finding solutions to these problems, the government implemented policies and initiated a structural reform program. The purpose of the present study is twofold. First, the nature of the abovementioned problems is studied by looking at the labor market conditions. Specifically, an analysis of the trends in employment, wages and productivity, and a comprehensive historical account of how policies and policy changes affected them directly and indirectly, are presented. Moreover, the impacts of policies adopted by the government in the 1980s on employment, wages and productivity are assessed qualitatively. Policy recommendations are drawn based on the findings of the study.

Secondly, the employment impact of the various structural adjustment measures adopted in the 1980s is re-examined within a general equilibrium framework. Specifically, the study provides estimates of the employment and wage effects of the structural adjustment program based on simulation experiments using the PIDS-NEDA (1987 version) macroeconometric models and Habito's (1986) computable general equilibrium model of the Philippine economy. Based on these, policy recommendations and new directions for future research in the area are provided.

Part I of this study discusses the recent trends in employment, unemployment, underemployment, wages and productivity. It was observed that employment has generally increased over the period 1970-87 with a few years exhibiting slight declines. It was also observed that more than 50 percent of total employment was engaged in agriculture while the share of agriculture to total employment showed an apparent tendency to decline. The structural shift has been from agriculture to services, instead of agriculture to industrial sector. Unemployment rates in the country were high especially during the 1980s. Likewise, underemployment rates were also rapidly rising. Labor productivity roughly measured by output per worker has increased from 1961 to 1980 but declined thereafter until 1986

afterwhich a slight increase was observed in 1987. Nominal agricultural and nonagricultural wages has been increasing through the years. However, real wages in both sectors declined.

A review of the past and present policies showed that the industrialization policies implemented during the post-war period generally increased output and investments but their inherent capital bias resulted in the low rate of labor absorption. The manufacturing sector failed to generate enough jobs necessary to absorb the increasing labor force. This was due to factors like the limitations in the domestic market for output of import substituting firms, and the misallocation of investible funds to high cost industries as a result of incentives and short-sighted labor legislation which raised labor costs and discouraged employment. In addition , the adoption of an outward-looking strategy like export promotion is hindered by the lack of reciprocal response in the international setting due to increasing protectionism and stagnation among developed economies.

In search for policies which can increase labor absorption, the following points were made based on the analysis. First, what is called for is a system of taxation and protection which is nonfactor price distortive. Secondly, economic growth and employment generation can be accelerated with a firmer commitment on the part of the authorities in implementing the structural reforms. And lastly, the outward-looking strategy is worth pursuing giving emphasis to light manufacturing industries which showed resiliency to the impact of the economic crisis as evidenced by its ability to maintain relatively high levels of sales and small levels of labor displacement during the crisis years.

Part II provides a quantitative assessment of the impact of structural adjustment measures on employment and wages. Using the PIDS-NEDA macroeconometric models, three counterfactual experiment related to structural adjustment policy reform were conducted to appraise their employment effect for 1980 to 1990. Firstly, simulation results showed that the tariff reform program (TRP) has a positive effect on output, employment, exports and prices. Secondly, removal of export taxes on all products except logs in 1986 has a small positive effect on output and total employment except in 1989 and 1990. The policy has favorable influence on current account balance by effecting an increase in exports. Thirdly, an evaluation of the financial liberalization program using the PIDS-NEDA model was found not to be feasible given the shortcomings of the present version of the model.

Using Habito's computable general equilibrium model, two simulations were done. First, the estimates showed that TRP increased total output and average wage implying positive effect on the labor market. The policy increased the relative price of nontradables while it decreased relatively price of importables.

It also decreased average wage in agriculture and manufacturing while it increased that of nontradables. TRP was found to favor middle income groups. Second, BOI incentives decreased total output, average wage and total employment. It has a regressive impact on real income across household group. The shift to a flexible exchange rate regime has a positive effect on output and prices. Labor is reallocated into export and import substituting sector away from nontradables.

EMPLOYMENT, PRODUCTIVITY AND WAGES IN THE PHILIPPINE LABOR MARKET: AN ANALYSIS OF TRENDS AND POLICIES

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I. INTRODUCTION

The resurgence of massive unemployment and the persistently increasing level of underemployment, occurring against a backdrop of low and declining productivity and real wages especially at the turn of the decade, have acquired prominence in the new government's list of major concerns. This is rightly so, because not only are these conditions reflective of major structural weaknesses in the economy which usually result in resource misallocation and wastages, they also constitute the important dimensions in the incidence of poverty and its consequent problems. This concern is explicitly expressed in the country's medium-term development plan for the period 1987-1992 1/ which declared the following as its development goals: poverty alleviation, productive employment generation, income redistribution and sustained economic growth. Given this concern, and the government's commitment to find solutions to these problems, a study, therefore, of the nature of these problems, especially in the context of more recent developments in the country, is very much called for.

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1/ This plan has been updated for the period 1988-1992 to allow for the incorporation of some constitutional provisions as stipulated in the 1987 Constitution as well as to address the shortfalls on some indicators in 1987. The general objectives/goals of the plan, however, remain the same.

This study will attempt to present in a coherent and more systematic way conditions in the labor market, especially in terms of employment, unemployment, underemployment, productivity and wages. Specifically it aims to:

a) analyze the trends in employment, wages and productivity;

b) provide a comprehensive historical account of the policies and policy changes directly and indirectly related to employment, wages and productivity;

c) assess qualitatively the impacts of the pattern of development that is going to take shape in view of the present policies related to employment, wages and productivity; and relatedly to construct short-term, employment scenarios based on these policies; and

d) come up with policy recommendations based on the findings.

A. Data Sources

1. Employment 2/

The main source of labor statistics is the Integrated Survey of Households (ISH) being conducted by the National Statistics Office (NSO) on a quarterly basis. The ISH was previously known as the Philippine Statistical Survey of Households (PSSH) up to 1958 and Bureau of Census and Statistics Survey of Households (BCSSH) from 1959 to 1976.

During the period 1956-1969, the household surveys were conducted bi-annually mostly in the months of May and October. Starting 1971, the survey was conducted on a quarterly basis. This was interpreted as an improvement in the data's ability to capture the seasonality of labor force participation, especially in agriculture. Mijares and Ordinario (1973) argued that the October or third quarter survey is more representative than say the May survey, because the latter month coincides with the school summer vacation when many students join the labor force temporarily. Likewise, the demand for labor is likely to be higher during the month of May especially in agriculture since this period marks the start of the wet season (Oshima 1984).

2/ This discussion draws upon the work of Tidalgo and Esguerra (1984) and Canlas (1987).

From May 1956 to August 1976, labor force data included household population 10 years and over who were either classified as employed or unemployed based on the reference week, i.e., the calendar week, Saturday to Sunday preceding the visit of the interviewer. In the third quarter of 1976, the population coverage was adjusted to 15 years and over and the reference period was changed to past quarter. The collection of data was done in the month following the reference quarter. 3/ For the second quarter series of 1987, the reference week was again used and the questionnaire underwent some changes.

The data used in this study are from the third quarter or October surveys. This set is supplemented by data from the 1970 and 1980 Censuses of Population and Housing (CPH), the 1975 Integrated Census of Population and Economic Activities (ICPEA) and the Annual Survey of Establishments (ASE).

2. Wages

Several government agencies collect data on wages. These agencies include the National Statistics Office (NSO), the Central Bank (CB), the National Wages Council (NWC), the Bureau of Agricultural Economics (BAEcon), and the Compensation and Position Classification Board (CPCB), formerly the Office of Compensation and Position Classification (OCPC) and earlier the Wage and Position Classification Office (WAPCO).

NSO, CB, CPCB and NWC conduct surveys on nonagricultural wages while BAEcon is the sole agency monitoring agricultural wages.

CPCB conducted its surveys once every three years from 1960 to 1969; once every two years from 1969 to 1973 and 1979 onwards. 4/ The data from these surveys are being used officially in determining how much the salary level in private employment has changed relative to government employment. The information regarding the changes in private wage and salary

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3/ Tidalgo and Esguerra (1984) noted that the change in the reference period had no systematic effect on the size of the labor force but employment figures based on the reference quarter were higher than those based on the reference week for the period 1976-1978. NSCB likewise provides comparative statistics on labor force and employment using the two reference periods from 1976-1987, and similar observations surfaced.

4/ Available data after 1979 are for the years 1981 and 1985. The latest survey was conducted by SGV, and we were informed that this data set is not comparable with the previous series and hence cannot be used to complete the series.

levels are used as basis for reviewing and updating government salary scales to evolve a truly realistic compensation scheme for government employees, and to keep their salary levels competitive with the prevailing salary levels in private employment. Firms included in the surveys are large in terms of employment size and are mostly in Metro Manila. The surveys concentrate on selected jobs common to both private and government agencies. 5/

The NSO data set is wider in scope. It provides data on average earnings and compensation for a wider variety of occupations through the Integrated Quarterly Survey of Establishments (IQSE), the Annual Survey of Establishment (ASE), the Census of Establishments (CE), the Integrated Survey of Households (ISH) and the Survey of Key Enterprises in Manufacturing (SKEM). However, data on average weekly cash earnings are not available for certain years due to its non-inclusion in the survey questionnaire.

More significant series, although smaller in scope are the Central Bank's Survey of Laborers in Industrial Establishments in Manila and suburbs conducted yearly and the Wage Commission's Survey of Base Compensation, Personnel Practices and Fringe Benefits conducted quarterly. The CB series contains the average daily wage rates derived from data furnished by 102 establishments covering major industries. 6/ The Wage Commission's survey series was conducted in Metro Manila and included information on monthly compensation (overall, by employment size and for unionized and non-unionized firms), summary of personnel practices and fringe benefits, and occupational data (ranges by industry). The first survey was conducted in 1974 and a total of 43 surveys covering 27 industries were conducted until 1980 when the wage commission was abolished. Likewise, CB's surveys were stopped in 1980.

The NWC Occupational Survey started in 1985 and data collection is undertaken twice a year. The survey covers 450 firms in Metro Manila and 450 firms outside Metro Manila, all representing 35 major industries. There are 11 general occupational categories and 132 specific occupations included in the survey.

5/ For a more detailed discussion of the CPCB surveys, see Sanchez (1986).

6/ These establishments include automobile dealers, brokerages, lumberyards, furniture manufacturers, printing and publishing, transportation and construction firms.

The BAEcon is the single source of data on agricultural wages up to the present. Data are obtained from surveys of farm labor engaged in palay, corn, coconut, sugarcane and vegetables production. 7/

3. Productivity

The simple estimation of labor productivity (Q/L) requires information on output (GDP) and gross value added by major sector and industry and total employment by industry. Basic data are taken from NSO's Annual Survey of Establishments and NSCB's National Income Accounts.

II. AN OVERVIEW OF RECENT TRENDS

This section will discuss trends in employment, unemployment, underemployment, wages and productivity. While data, especially for employment and unemployment are available for as early as 1956, the discussion will concentrate on changes during the 1970s and 1980s. Several studies have already discussed the trends in the earlier periods and this section hopes to update and supplement these earlier works. 8/

A. Employment, Unemployment and Underemployment

Employment has generally increased over the period 1970-1987, despite some slight declines in 1976, 1982 and 1986 (Table 1). The highest growth rate was experienced in the first half of the 70s, having reached an average annual rate of 5.1 percent (Table 2). Employment rate was 94.6 percent on the average, a relatively stable figure for the period except for 1973 and 1974 when the rates were at the peak of 99.4 percent and 98.4 percent, respectively. This observation can very well be traced to the increasing labor force which experienced high rates of growth especially after the middle of the seventies until 1985, i.e., 4.0 percent and 4.3 percent for the periods 1975-1980 and 1980-1985, respectively (see Tables 3 & 4). This fast increase in the labor force is indicative of the relatively young and growing population (see Tables 7 to 10) and the increasing number of females joining the labor force. In fact, the latter has been observed to have grown faster than males, especially during the second half of the 70s (Table 4). This is also evidenced by the labor force ratio which has shown a generally declining trend especially after 1970. Likewise, female labor force

7/ The total output of the first four crops comprise about 69 percent on the average of total crop production, hence only these four groups of farmers are included in the analysis.

8/ See for example Tidalgo (1972), Tidalgo and Esguerra (1984), Lal (1979), Canlas (1987) and Reyes (1987).

Table 1
EMPLOYMENT, 1970-1987
(In 000)

Year	Total Number of Persons Employed	Employment Rate (as percentage of the Labor Force)
1970	11,358	92.4
1971	12,534	92.4
1972	13,217	94.7
1973	13,262	99.4
1974	14,479	98.4
1975	14,517	95.2
1976	14,238	94.8
1977	14,334	95.0
1978	16,118	95.8
1979	16,267	96.0
1980	16,434	95.8
1981	17,452	95.0
1982	17,371	94.7
1983	19,212	94.0
1984	18,832	92.7
1985	18,801	92.9
1986	20,595	93.3
1987	20,795	90.9
	Average	94.6

Sources: NEDA (1986), Compendium of Social Statistics.
NSO, Special Release, various issues.
DOLE, Yearbook of Labor Statistics, various issues.

Table 2
AVERAGE ANNUAL GROWTH RATE OF EMPLOYMENT
AND AVERAGE EMPLOYMENT RATE

Year	Growth Rate	Average Employment Rate
1970-1975	5.1	95.4
1975-1980	2.6	95.4
1980-1985	3.9	94.2
1985-1987	2.5	92.4

Source: Computed from Table 1.

Table 3
TOTAL WORKING AGE POPULATION AND TOTAL LABOR FORCE BY SEX
1970-1987 a/

Year a/	Working Age Population (000)	Total Labor Force	Male Labor Force	Female Labor Force	Male-Female Labor Force Ratio
1970 Census	25,115	12,297	8,368	3,929	2.13
1971 August	25,513	12,895	8,649	4,247	2.04
1972 November	26,719	13,294	9,041	4,252	2.13
1973 February	28,169	13,472	9,087	4,385	2.07
1974 November	28,753	14,283	9,690	4,592	2.11
1975 February	29,751	14,286	9,700	4,586	2.12
1976 Third Quarter	24,837	15,017	9,964	5,054	1.97
1977 Third Quarter	25,787	15,002	10,173	4,830	2.11
1978 Third Quarter	26,882	16,811	10,704	6,107	1.75
1979 Third Quarter	27,598	16,945	-	-	-
1980 Third Quarter	28,967	17,308	11,181	6,126	1.83
1981 Third Quarter	29,847	18,422	11,660	6,763	1.72
1982 Third Quarter	30,748	18,473	11,723	6,751	2.00
1983 Third Quarter	31,676	20,311	12,374	7,937	1.56
1984 Third Quarter	32,680	21,180	12,998	8,812	1.48
1985 Third Quarter	33,647	21,318	13,234	8,084	1.64
1986 Third Quarter	34,612	22,067	13,576	8,490	1.80
1987 Third Quarter	34,480	22,872	14,408	8,464	1.70

a/
Data for 1970-1975 included 10-14 years old while that for 1976-1987 were for 15 years old and over.
Likewise, all similar succeeding series follow the same survery period.

Sources: NEDA (1986), Compendium of Philippine Social Statistics.
NCSO (1987), Special Release, Office of the Executive Director.
DOLE (1984), Yearbook of Labor Statistics.

Table 4
AVERAGE ANNUAL GROWTH RATE OF LABOR FORCE
BY SEX, 1970-1987

Year	Total Labor Force	Male Labor Force	Female Labor Force
1970-1975	3.1	3.0	3.2
1975-1980	4.0	3.6	8.1
1980-1985	4.3	3.4	6.1
1985-1987	3.6	4.4	2.4

Source: Computed from Table 3.

Table 5
LABOR FORCE PARTICIPATION RATES (LFPR) BY SEX
1970-1987
(In %)

Year	Total Labor Force Participation Rate	Male LFPR	Female LFPR
1970	48.9	68.1	30.6
1971	45.9	67.2	32.2
1972	53.1	67.8	30.6
1973	49.3	66.9	31.5
1974	49.4	67.7	31.8
1975	50.9	67.9	31.3
1976	60.5	81.4	40.1
1977	58.2	79.9	37.0
1978	62.5	80.7	44.8
1979	61.4	-	-
1980	59.8	77.7	42.0
1981	61.7	78.6	45.0
1982	60.1	76.7	43.7
1983	64.1	78.8	49.7
1984	64.8	80.9	49.2
1985	63.4	79.9	47.3
1986	63.8	79.4	48.5
1987	66.3	82.3	48.3
Average	58.0	75.4	40.2

Sources: NEDA (1986), Compendium of Philippine Social Statistics.
NSO (1987), Special Release, Office of the Executive Director.
DOLE, Yearbook of Labor Statistics, various issues.

Table 6
LABOR FORCE PARTICIPATION RATE BY AGE, URBAN AND RURAL
In % (1980-1987)

Age Group	1980		1981		1982		1983		1984		1985		1986		1987	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
15-19	25.4	41.2	26.8	44.2	27.7	40.9	28.8	47.4	32.7	47.0	30.2	44.9	28.1	47.9	32.5	48.6
20-24	54.7	60.9	56.5	63.9	54.9	60.0	58.6	65.7	63.7	65.7	58.8	64.8	57.8	66.1	64.6	69.0
25-34	71.0	69.1	73.6	70.9	71.9	67.9	73.7	74.8	74.5	73.1	74.6	72.0	72.8	73.3	76.4	73.0
35-44	72.4	72.5	75.6	74.7	74.4	74.1	76.0	78.4	77.9	79.1	76.7	78.1	75.9	79.0	78.0	78.3
45-54	68.9	75.1	69.3	76.2	70.6	74.7	72.3	79.7	72.2	80.3	72.9	80.6	73.1	79.7	74.8	79.6
55-64	56.0	70.0	56.2	71.8	58.7	69.3	58.9	74.0	60.0	72.5	61.5	72.9	59.7	73.3	62.4	76.2
65 and over	26.6	48.4	30.3	49.2	31.0	49.3	29.1	51.7	31.7	47.9	30.7	44.6	29.0	48.9	32.9	52.5

Source: NCSO, Integrated Survey of Households (Unpublished).
NCSO, Philippine Yearbook, 1983 and 1985.

Table 7
TOTAL POPULATION BY SEX, 1970-1992
(In 000)

Year	Total Population	Male	Female
1970	36,684	18,250	18,434
1975	42,071	21,276	20,795
1980	48,098	24,129	23,970
1981 a/	49,536	24,846	24,690
1982	50,783	25,475	25,308
1983	52,055	26,117	25,938
1984	53,351	26,772	26,579
1985	54,668	27,437	27,231
1986	56,004	28,112	27,892
1987	57,356	28,796	28,560
1988	58,721	29,486	29,235
1989	60,097	30,183	29,914
1990	61,480	30,883	30,597
1991	62,900	-	-
1992	64,300	-	-

a/ Data from 1981-1992 are projected values using the medium assumption, i.e., moderate fertility and moderate mortality decline.

Sources: NEDA (1986), Statistical Yearbook.
Department of Labor, 1984 Yearbook of Labor Statistics.

Table 8
AVERAGE ANNUAL GROWTH RATE OF POPULATION BY SEX
(In %)

Year	Total Population	Male	Female
1970-75	2.9	3.3	2.6
1975-80	2.9	2.7	3.1
1980-85	2.6	2.6	2.6
1985-87	2.4	2.4	2.4
1988-92 a/	2.3	2.4	2.3

a/ Average for 1988-1990.

Source: Computed from Table 7.

Table 9
POPULATION BY AGE GROUP, 1970-1990

	1970		1975		1980		1985 a/		1990 a/	
Age Groups	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent	Number (000)	Percent
0-14	16,757	45.7	18,494	44.0	20,221	42.0	22,053	40.3	23,755	38.6
15-64	18,894	51.5	22,375	53.1	26,241	54.6	30,741	56.2	35,598	57.9
65 and over	1,033	2.8	1,202	2.9	1,636	3.4	1,874	3.4	2,127	3.5
Total	36,684	100.0	42,071	100.0	48,098	100.0	54,668	100.0	61,460	100.0

a/
Projection based on medium assumption (moderate fertility and moderate mortality decline).

Sources: NEDA (1986), Statistical Yearbook.
NSO Census of Population and Housing, various issues.

Table 10
AVERAGE ANNUAL GROWTH RATE OF POPULATION
BY AGE GROUP, 1970-1990

Age Group	1970-1975	1975-1980	1980-1985	1985-1990
0-14	2.1	1.9	1.8	1.5
15-64	3.7	3.5	3.4	3.2
65 +	3.3	7.2	2.9	2.7

Source: Computed from Table 9.

participation rate (LFPR) has been observed to be generally on the uptrend since 1970, peaking during the early 80s, perhaps as a consequence of the difficult economic conditions during the period (Table 5). Generally, when real incomes of families decline, women tend to join the labor force in order to augment family income. 9/ In the case of the observed decline in female labor force for the period 1985-1987, the unusually depressed economic conditions may have adversely affected the so-called marginal workers, especially women.

The acceleration in the growth of agriculture as well as the expansion of the services sector allowed for the higher rate of absorption of the enlarging stock of the labor force in the early 1970s. For the period 1970-1987, more than 50 percent on the average of total employment was engaged in agriculture. There was an apparent tendency in agriculture's share to total employment to decline, but it was a little bit slow, i.e., from 54 percent in 1970 to 48 percent in 1987 (Table 11) compared to what newly industrializing countries like Taiwan and South Korea have experienced before. 10/ The net transfer of employment has evidently been from agriculture to the services sector. From about 28 percent in 1970, this sector's share to total employment expanded to 38 percent in 1987. The share of the industrial sector has shown a generally declining movement, with the lowest level of 13.3 percent registered in 1986. More specifically, the manufacturing sector did not provide the employment opportunities needed to absorb the new entrants to the labor force which number about 750,000 annually, as well as to those moving out of the agricultural sector. From a share of about 12 percent in 1970, employment in manufacturing declined to only about 10 percent of total employment in 1987 (Table 12). The declining pattern has been consistent since 1970 and this is reflective of the capital-intensive nature of the industrialization program of the country as well as the deteriorating economic conditions which prevailed during the early 1980s. In the services sector, wholesale and retail trade and community, social and personal services sectors have shown increasing employment shares hitting 14 percent and 18 percent, respectively in 1987.

In Table 13, we observe that most of those employed are wage and salary workers. More than 40 percent of workers are in this category and about 39 percent are own-account workers as of 1987. However, a continuous decline in the share of wage and salary workers is observed between 1976 and 1983. The share of unpaid

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9/ Several studies have already studied this behavior in the Philippines (e.g., Canlas 1978, Encarnacion and Canlas 1977, and Paqueo and Angeles 1979).

10/ These countries' shares have been reduced to about 20 to 30 percent of total employment.

Table 11
EMPLOYMENT BY MAJOR SECTORS
1970-1987

Year	Total Employment	Agriculture, Forestry, Hunting and Fishing: Number (000)	%	Industrial Sector: Number (000)	%	Service Sector: Number (000)	%	Activity Not Adequately Defined: Number (000)	%
1970	11,358	6,100	53.7	1,876	16.5	3,198	28.2	184	1.6
1971	12,583	6,440	51.2	2,053	16.3	4,062	32.3	29	0.2
1972	13,217	7,166	54.2	2,021	15.3	4,011	30.3	20	0.2
1973	13,261	7,016	52.9	2,039	15.4	4,177	31.5	29	0.2
1974	14,479	8,245	56.9	1,999	13.8	4,216	29.1	19	0.1
1975	14,517	7,760	53.5	2,207	15.2	4,504	31.0	39	0.3
1976	14,238	7,659	53.8	2,158	15.2	4,372	30.7	48	0.3
1977	14,334	7,474	52.1	2,093	14.6	4,672	32.6	96	0.7
1978	16,101	8,403	52.2	2,370	14.7	5,297	32.9	30	0.2
1979	-	-	-	-	-	-	-	-	-
1980	16,433	8,453	51.4	2,554	15.5	5,421	33.0	6	0.04
1981	17,452	8,928	51.2	2,545	14.6	5,974	34.2	4	0.02
1982	17,371	8,920	51.3	2,472	14.2	5,978	33.4	-	-
1983	19,212	9,880	51.4	2,764	14.4	6,558	34.1	-	-
1984	19,632	9,740	49.6	2,909	14.8	6,983	35.6	-	-
1985	19,801	9,698	49.0	2,812	14.2	7,292	36.8	-	-
1986	19,410	9,705	50.0	2,582	13.3	7,124	36.7	-	-
1987	20,795	9,940	47.8	3,045	14.6	7,810	37.6	-	-

Sources: NEDA (1987), Philippine Statistical Yearbook.
NSO, Special Release, various issues.

Table 12
PERCENTAGE DISTRIBUTION OF EMPLOYMENT a/
BY MAJOR INDUSTRY
(In %)

Year	Agriculture, Fishery and Forestry	Mining and Quarrying	Manufacturing	Electricity, Gas and Water	Construction	Wholesale b/ and Retail Trade	Transportation, Storage and Communication	Financing, Insurance, Real Estate and Business Services	Community, Social and Personal Services	Industry Not Adequately Defined
1970	53.7	0.4	11.9	0.3	3.8	7.4	4.4	-	16.4	1.6
1971	50.4	0.4	11.5	0.4	3.3	12.4	4.2	-	17.1	0.2
1972	54.6	0.3	10.5	0.3	3.4	11.7	3.7	-	16.4	0.0
1973	56.0	0.4	10.1	0.3	2.5	11.1	3.6	-	15.8	0.2
1974	55.8	0.3	10.3	0.3	2.9	11.2	3.6	-	15.6	0.2
1975	53.5	0.4	11.4	0.3	3.1	11.2	3.4	-	16.4	0.3
1976	53.8	0.6	11.2	0.4	3.0	9.6	4.2	9.7	6.9	0.3
1977	52.1	0.4	10.6	0.3	3.4	9.4	4.0	2.4	16.0	0.7
1978	52.2	0.4	10.8	0.3	3.2	10.1	4.3	2.2	16.3	0.0
1980	51.4	0.6	11.0	0.4	3.6	10.1	4.4	2.0	16.4	0.0
1981	51.2	0.4	10.4	0.4	3.4	11.2	4.2	1.8	17.0	0.0
1982	51.3	0.4	10.0	0.3	3.5	11.0	4.4	2.2	16.8	-
1983	51.4	0.5	9.8	0.4	3.8	11.4	4.3	1.8	16.6	-
1984	49.6	0.7	9.8	0.4	3.9	12.4	4.4	1.9	16.8	-
1985	49.0	0.8	9.7	0.4	3.4	13.2	4.7	1.7	17.2	-
1986	50.0	0.7	9.2	0.3	3.1	13.7	4.1	1.9	17.1	-
1987	47.8	0.7	9.9	0.4	3.6	13.7	4.5	1.0	17.4	-

NOTE:

a/ - Data for 1970-1975 was based on household population 10 years and over;
1976-1987 was based on household population 15 years and over.
b/ - The earlier industrial classification included Commerce in this category.

Sources: NEDA (1986), Philippine Statistical Yearbook.
NSO, Special Release, various issues.
DOLE, Yearbook of Labor Statistics, various issues.

Table 13
NUMBER AND DISTRIBUTION OF EMPLOYED PERSONS
BY CLASS OF WORKER
(In 000 and %)

Class of Worker	1976 No.	1976 %	1978 No.	1978 %	1980 No.	1980 %	1981 No.	1981 %	1982 No.	1982 %	1983 No.	1983 %	1984 No.	1984 %	1985 No.	1985 %	1986 No.	1986 %	1987 No.	1987 %
Wage and Salary Workers	6,409	45.0	6,820	42.3	6,955	42.3	7,303	41.8	7,104	40.9	7,864	40.9	8,812	44.9	8,678	43.8	8,706	42.3	9,166	44.[illegible]
Own Account Workers	5,412	38.0	6,081	37.7	6,207	37.8	6,602	37.8	6,739	38.8	7,440	38.7	7,646	38.9	7,857	39.7	8,328	40.4	8,157	39.2
Unpaid Family Workers	2,309	16.2	3,200	19.9	3,272	19.9	3,547	20.3	3,528	20.3	3,909	20.3	3,174	16.2	3,265	16.5	3,581	17.3	3,473	16.7
Not Reported	108	0.8	18	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	14,238	100.0	16,118	100.0	16,434	100.0	17,452	100.0	17,371	100.0	19,212	100.0	19,632	100.0	19,801	100.0	20,595	100.0	20,795	100.0

Source: NCSO, Integrated Survey of Households (Published and Unpublished).
Department of Labor, 1984 Yearbook of Labor Statistics.

family workers increased from 16 percent to 20 percent also for the same period. Own-account workers remained close to 38 percent for the whole period. However, from 1984 to 1987, a reversal of the movement is observed with the wage and salary workers increasing again accompanied by a decreasing share of unpaid family workers. This observation may have been due to the shift of labor from farm activities to off-farm and non-farm activities especially in the rural sector. Since most of the unpaid family workers are really agricultural workers, the deteriorating economic conditions which prevailed during the period under consideration must have pushed these workers out of the farms into other non-farm rural activities. Of particular significance was the unfavorable price movements in the international market of our major natural resource or land based exports especially sugar and coconut. This explanation is partly corroborated by the observed increase of production workers from 18.4 percent in 1983 to 20.0 percent in 1987 (Table 14).

For the same period 1976-1987, close to half of total employed were agricultural, animal husbandry and forestry workers, fishermen and hunters. Likewise the shares of sales and service workers increased significantly. However, the share of professional, technical, administrative, executive and managerial workers remained relatively small evidently signifying the relative scarcity of skilled workers. This is supported by the observation that more than 55 percent of all persons employed have elementary schooling as their highest educational attainment.

Unemployment rates in the Philippines are still considered high especially during the 1980s (Table 16). They have almost always exceeded the target levels set in the various development plans of the country (see Reyes and Milan 1988). Although there seems to have been a tremendous decline in unemployment especially during the onset of Martial Law until 1973, this achievement should be viewed with some reservations. There are indications showing that this decline may really just have been "managed" figures to support the new programs introduced by the government during the period. Likewise, maintaining the rates just slightly above four percent, after 1976 compared to above seven percent on the average for the years before 1972, was possible as a result of the change in the reference period from past week to past quarter. Generally though, unemployment rate has been increasing especially at the start of the current decade. From 5.0 percent in 1980, unemployment rate has almost continuously risen to 6.7 percent. The figure for 1987, i.e., 9.1 percent is much higher on account of the change in the reference period again, from past quarter to past week.

Unemployment was highest among the young members of the labor force especially those in the 15-24 age group (Table 17). These are members of the labor force most likely to have high turnover rates and long unemployment spells (Canlas 1987). Their

Table 14
NUMBER AND DISTRIBUTION OF EMPLOYED PERSONS
BY OCCUPATIONAL GROUPS, 1976-1987
(In 000 and %)

MAJOR OCCUPATION GROUP	1976		1977		1978		1980		1981		1982		1983		1984		1985		1986		1987	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Professional and Technical Workers	900	6.3	888	6.2	990	6.1	1,049	6.4	1,078	6.2	1,094	6.3	1,139	5.9	1,175	6.0	1,179	6.0	1,144	5.6	1,167	5.6
Administrative, Executive and Managerial Workers	185	1.2	106	0.7	154	1.0	162	1.0	185	1.1	193	1.1	176	0.9	197	1.0	187	0.9	182	0.9	181	0.9
Clerical Workers	593	4.2	650	4.5	710	4.4	747	4.5	769	4.4	822	4.7	871	4.5	854	4.4	831	4.2	845	4.1	898	4.3
Sales Workers	1,301	9.1	1,372	9.6	1,625	10.1	1,678	10.2	1,948	11.2	1,911	11.0	2,171	11.3	2,397	12.2	2,550	12.9	2,756	13.4	2,757	13.3
Service Workers	1,083	7.6	1,054	7.4	1,233	7.7	1,243	7.6	1,331	7.6	1,317	7.6	1,506	7.8	1,609	8.2	1,640	8.3	1,615	7.8	1,783	8.6
Agriculture, Animal Husbandry and Forestry Workers, Fishermen and Hunters	7,434	52.2	7,429	51.8	8,345	51.8	8,391	51.1	8,862	50.8	8,879	51.1	9,805	51.0	9,621	49.0	9,580	48.4	10,179	49.4	9,858	47.4
Production and Related Workers, Transport Equipment Operators and Laborers	2,725	19.1	2,747	19.2	3,107	18.7	3,161	19.2	3,275	18.8	3,149	18.1	3,535	18.4	3,772	19.2	3,817	19.3	3,873	18.8	4,152	20.0
Occupation Not Adequately Defined	36	0.3	48	0.3	31	0.2	5	0.03	5	0.03	5	0.03	11	0.1	-	-	5	0.03	1	0.0	-	-
TOTAL	14,238	100.0	14,334	100.0	16,101	100.0	16,434	100.0	17,453	100.0	17,371	100.0	19,212	100.0	19,632	100.0	19,801	100.0	20,595	100.0	20,795	100.0

Sources: NEDA (1986), Philippine Statistical Yearbook.
NSO, Special Release, various issues.
DOLE, Yearbook of Labor Statistics, various issues.

Table 15
NUMBER AND DISTRIBUTION OF EMPLOYED PERSONS
BY HIGHEST GRADE COMPLETED, 1978-1988
(In 000 and %)

Highest Grade Completed	1978 No.	1978 %	1980 No.	1980 %	1981 No.	1981 %	1982 No.	1982 %	1983 No.	1983 %	1984 No.	1984 %	1985 No.	1985 %	1986 No.	1986 %	1987 No.	1987 %
No Grade Completed	1,048	6.5	1,051	6.4	1,051	6.0	945	5.4	1,056	5.6	1,056	5.4	979	4.9	1007	4.9	951	4.6
Elementary																		
1st to 5th Grade	4,640	26.8	4,601	28.0	4,850	27.8	4,717	27.2	5,095	26.5	4,979	25.4	5,015	25.3	5036	24.5	4,945	23.8
Graduate	3,909	24.3	3,983	24.2	4,314	24.7	4,262	24.5	4,718	24.6	4,918	25.1	4,844	24.5	5155	25.0	4,852	23.3
High School																		
1st to 3rd Year	1,998	12.4	2,001	12.2	2,153	12.3	2,129	12.3	2,467	12.8	2,475	12.6	2,469	12.5	2650	12.9	2,779	13.4
Graduate	1,920	11.9	2,019	12.3	2,118	12.1	2,215	12.8	2,446	12.7	2,717	13.8	2,934	14.8	3141	15.3	3,326	16.0
College																		
Undergraduate	1,111	6.9	1,195	7.3	1,304	7.5	1,402	8.1	1,501	7.8	1,573	8.0	1,577	8.0	1627	7.9	1,768	8.5
Graduate	1,434	8.9	1,531	9.3	1,637	9.4	1,679	9.7	1,909	9.9	1,901	9.7	1,977	10.0	1969	9.6	2,158	10.4
Not Reported	59	0.3	53	0.3	25	0.1	21	0.1	19	0.1	13	0.1	8	0.0	10	0.0	18	0.1
Total	16,118	100.0	16,434	100.0	17,452	100.0	17,371	100.0	19,212	100.0	19,632	100.0	19,801	100.0	20595	100.0	20,795	100.0

Source: Department of Labor, 1984 Yearbook of Labor Statistics.
NCSO, Integrated Survey of Households (Unpublished).

Table 16
UNEMPLOYMENT, 1956-1987

Year	Total Number of Persons Unemployed (000)	Unemployment Rate (as percentage of the LF) %
1956	859	10.0
1957	630	7.1
1958	647	7.2
1959	540	5.9
1960	577	6.3
1961	618	6.4
1962	662	6.5
1963	469	4.6
1964	724	6.4
1965	663	6.2
1966	821	7.0
1967	909	7.7
1968	900	7.9
1969	811	6.7
1970	939	7.6
1971	699	5.3
1972	77	0.6
1973	210	1.6
1974	725	4.8
1975	644	4.2
1976	780	5.2
1977	668	4.5
1978	693	4.1
1979	712	4.2
1980	874	5.0
1981	970	5.3
1982	1,102	6.0
1983	1,099	4.4
1984	1,546	7.3
1985	1,517	7.1
1986	1,472	6.7
1987	2,085	9.1

Sources: NEDA (1986), Compendium of Philippine Social Statistics.
NCSO (1987), Special Release, various issues.
DOLE, Yearbook of Labor Statistics, various issues.

Table 17
PERCENT DISTRIBUTION OF UNEMPLOYED PERSONS
BY SEX AND AGE GROUP

Age Group	1978 Both Sexes	1978 Male	1978 Female	1980 Both Sexes	1980 Male	1980 Female	1981 Both Sexes	1981 Male	1981 Female	1982 Both Sexes	1982 Male	1982 Female	1983 Both Sexes	1983 Male	1983 Female
15-19	22.2	26.9	19.7	23.6	30.7	18.7	22.2	26.9	19.7	23.6	30.7	18.7	21.4	21.0	21.7
20-24	27.7	32.4	25.2	30.5	32.7	29.0	27.7	32.4	25.2	30.5	32.7	29.0	32.6	36.3	30.0
25-34	23.6	19.7	25.7	22.3	17.7	25.4	23.6	19.7	25.7	22.3	17.7	25.4	24.2	21.1	26.3
35-44	12.1	5.9	15.4	11.7	7.8	14.4	12.1	5.9	15.4	11.7	7.8	14.4	10.1	8.7	11.1
45-54	7.3	5.9	8.1	7.2	6.0	8.7	7.3	5.9	8.1	7.2	5.0	8.7	6.5	6.8	6.3
55-64	5.0	6.7	4.2	3.3	3.9	2.9	5.0	6.7	4.2	3.3	3.9	2.9	3.9	4.0	3.9
65 and over	2.0	2.5	1.8	1.4	2.2	0.9	2.0	2.5	1.8	1.4	2.2	0.9	1.3	2.1	0.8

Age Group	1984 Both Sexes	1984 Male	1984 Female	1985 Both Sexes	1985 Male	1985 Female	1986 Both Sexes	1986 Male	1986 Female	1987 Both Sexes	1987 Male	1987 Female
15-19	17.9	18.3	17.3	20.9	20.7	21.1	17.5	18.0	17.1	19.8	16.8	21.4
20-24	26.5	24.2	30.4	32.4	32.7	32.1	32.6	31.3	33.8	22.1	28.9	32.9
25-34	26.2	26.3	26.0	27.8	27.7	27.5	28.4	28.5	28.6	25.4	26.7	27.9
35-44	11.3	12.1	9.9	11.1	10.8	11.5	11.1	10.0	12.1	10.3	11.8	9.2
45-54	8.5	9.3	7.2	5.2	4.9	5.5	6.0	6.7	5.4	7.2	8.0	3.8
55-64	5.3	5.8	4.5	2.0	2.2	1.9	2.9	3.7	2.3	5.9	5.2	2.3
65 and over	4.3	4.2	4.5	0.8	1.1	0.5	1.4	1.8	1.0	4.8	4.9	3.9

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

educational attainments are low, mostly elementary grade (Table 18). Unemployment among male and female members of the labor force vary especially during the child-bearing stage of a female's life cycle. This is usually the time when married women move in and out of the labor force and usually re-entry after childbirth may prove to be difficult.

Unemployment was also high among agricultural and production workers, followed closely by sales workers (Table 19). However, from 1983 to 1986, the proportion of unemployed production workers to total unemployed outpaced that of agricultural workers, suggesting that the former group was the hardest hit by the economic crisis. Finally, most of the unemployed are in the National Capital Region capturing about 29 percent on the average of total unemployed.

Underemployment was most severe during the 80s (Table 21). 11/ Rates have gone beyond 20 percent and were rapidly increasing until 1984. This trend was common for both males and females, although the rates were much higher for males averaging about 28 percent with the peak of 39.3 percent experienced in 1984. For females, the average level was 21 percent and the highest level reached was 31.5 percent, also in 1984. This situation clearly points to the fact that earnings have become very inadequate during this period as a result of the economic crisis. This is even highlighted by the high proportion of full-time workers who still want additional work, i.e., on the average 39 percent from 1980 to 1986. Underemployment is prevalent among agricultural and production workers with low educational attainments and belong to age groups 25-34 and 35-44 (Tables 23, 24, 25). The high incidence of underemployment among agricultural workers may be attributed to the seasonality of work in monsoon agriculture and the absence or limited non-farm job opportunities in the rural sector. Data presented in Table 26 confirm this observation with agriculture getting more than 50 percent of total underemployed from 1976 to 1986.

The existence of underemployment is basically a result of inadequate income. This is clearly shown by data on Table 26 which indicates that most of the underemployed earn less than ₱5,000 per quarter and this group accounts for more than 90 percent of the total underemployed.

11/ Underemployed are those employed who express preference for additional work. The survey of households classifies underemployment as visible or invisible depending on the length of employment. The visibly underemployed are those working less than 40 hours/week or 65 days/quarter and wanting additional work, while the invisibly underemployed are those working at least full time but still want additional job.

Table 18
NUMBER AND PERCENT DISTRIBUTION OF UNEMPLOYED PERSONS
BY SEX AND HIGHEST GRADE, 1976-1987
(In 000 and %)

Highest Grade Completed	1976				1978				1980				1981				1982				1983			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%	No. (000)	%
No Grade Completed	8	2.4	10	2.2	2	0.8	20	4.4	7	2.0	26	5.0	9	2.2	22	3.9	7	1.5	25	3.8	4	0.9	15	2.3
Elementary	116	34.7	172	38.6	70	29.5	200	43.9	98	27.7	207	39.8	120	29.2	203	36.3	112	24.7	222	34.2	94	21.0	184	28.0
1st to 5th Grade	44	13.2	74	16.6	31	13.1	81	17.8	51	14.4	97	18.7	56	13.6	84	15.0	54	11.9	109	16.8	34	7.6	84	12.8
Graduate	73	21.9	98	22.0	39	16.5	119	26.1	47	13.3	110	21.2	63	15.3	119	21.3	58	12.8	113	17.4	60	13.4	99	15.1
High School	137	41.0	127	28.5	100	42.2	123	27.0	150	42.4	150	28.8	170	41.4	166	29.8	178	39.3	200	30.6	10	2.2	227	34.6
1st to 3rd Year	67	20.1	66	14.8	51	21.5	57	12.5	68	19.2	70	13.5	85	20.7	76	13.6	79	17.4	83	12.8	71	15.8	105	16.0
Graduate	70	21.0	81	13.7	49	20.7	66	14.5	82	23.2	80	15.4	85	20.7	90	16.1	100	22.1	116	18.2	109	24.3	121	18.4
College	69	20.7	132	29.6	65	27.4	111	24.3	97	27.4	133	25.8	112	27.3	167	29.8	155	34.2	201	30.9	170	37.9	225	34.2
Undergraduate	41	12.3	70	15.7	46	19.4	61	13.4	67	18.9	73	14.0	75	18.2	88	15.7	99	21.9	103	15.8	96	21.4	121	18.4
Graduate	29	8.7	62	13.9	20	8.4	50	11.0	30	8.5	60	11.5	37	9.0	79	14.1	56	12.4	98	15.1	74	16.5	104	15.8
Not Reported	4	1.2	4	0.9	1	0.4	2	0.4	2	0.6	5	1.0	-	-	1	0.2	-	-	1	0.2	1	0.2	-	-
TOTAL	334	100.0	446	100.0	237	100.0	456	100.0	354	100.0	520	100.0	411	100.0	560	100.0	453	100.0	650	100.0	448	100.0	657	100.0

Table 18 (cont'd)

Highest Grade Completed	1984 Male No. (000)	1984 Male %	1984 Female No. (000)	1984 Female %	1985 Male No. (000)	1985 Male %	1985 Female No. (000)	1985 Female %	1986 Male No. (000)	1986 Male %	1986 Female No. (000)	1986 Female %	1987 Male No. (000)	1987 Male %	1987 Female No. (000)	1987 Female %
No Grade Completed	8	1.2	15	1.7	5	0.7	10	1.2	6	0.9	19	2.4	44	4.5	57	5.2
Elementary	134	19.7	259	29.8	124	17.3	205	25.6	126	18.8	201	25.1	338	34.2	264	24.0
1st to 5th Grade	56	8.2	90	26.9	52	7.3	79	9.9	52	7.7	76	9.5	165	16.7	130	11.8
Graduate	7	1.0	169	19.4	73	10.2	126	15.7	74	11.0	125	15.6	173	17.5	134	12.2
High School	278	40.9	298	34.3	333	46.5	288	36.0	281	41.9	24	3.0	291	29.5	466	42.4
1st to 3rd Year	104	15.3	124	14.3	99	13.8	105	13.1	102	15.2	91	11.4	174	17.6	234	21.3
Graduate	174	25.6	174	20.0	234	32.7	163	22.6	179	26.7	157	19.6	117	11.9	182	16.6
College	258	38.0	297	34.2	253	35.3	297	37.1	257	38.3	331	41.4	311	31.5	312	28.4
Undergraduate	157	23.1	152	17.5	151	21.1	145	18.1	142	21.2	145	18.1	178	18.0	142	12.9
Graduate	101	14.9	145	16.7	102	14.2	153	19.1	115	17.1	187	23.4	133	13.5	170	15.5
Not Reported	1	0.1	-	-	-	-	-	-	1	0.1	1	0.1	-	-	-	-
TOTAL	679	100.0	869	100.0	716	100.0	801	100.0	671	100.0	800	100.0	987	100.0	1099	100.0

Sources: DOLE, Yearbook of Labor Statistics, various issues.
NSO, Integrated Survey of Households, unpublished.

Table 19
NUMBER AND DISTRIBUTION OF EXPERIENCED UNEMPLOYED BY MAJOR OCCUPATION

MAJOR OCCUPATION GROUP	1976 No. (000)	1976 %	1978 No. (000)	1978 %	1980 No. (000)	1980 %	1981 No. (000)	1981 %	1982 No. (000)	1982 %	1983 No. (000)	1983 %	1984 No. (000)	1984 %	1985 No. (000)	1985 %	1986 No. (000)	1986 %
All Occupations	290	100.0	349	100.0	446	100.0	519	100.0	543	100.0	617	100.0	888	100.0	800	100.0	750	100.0
Professional and Technical Workers	12	4.1	14	4.0	16	3.6	27	5.2	30	5.5	29	4.7	58	6.3	50	6.3	45	6.0
Administrative, Executive and Managerial Workers	-	-	1	0.3	9	2.0	6	1.2	2	0.4	1	0.2	1	0.1	2	0.3	4	0.5
Clerical and Related Workers	25	8.6	29	8.3	32	7.2	35	6.7	50	9.2	51	8.3	72	8.1	85	10.8	81	10.8
Sales Workers	38	13.1	50	14.3	77	17.3	74	14.3	82	15.1	101	16.4	126	14.2	126	15.8	101	13.5
Service Workers	34	11.7	28	8.0	46	10.3	43	8.3	46	8.5	59	9.6	108	12.2	104	13.0	84	11.2
Agriculture, Animal Husbandry and Forestry Workers, Fishermen and Hunters	82	28.3	120	34.4	126	28.3	177	34.1	168	30.9	176	28.5	218	24.5	139	17.4	169	22.5
Production and Related Workers, Transport Equipment Operators and Laborers	91	31.4	106	30.4	139	31.2	156	30.1	165	30.4	198	32.1	308	34.7	292	36.5	266	35.5
Occupation Not Adequately Defined	8	2.8	2	0.6	-	-	-	-	-	-	2	0.3	-	-	2	0.3	-	-

Sources: NSO, Integrated Survey of Households (Unpublished).

Table 20
NUMBER OF UNEMPLOYED PERSONS BY REGION, 1978-1987
(In 000)

Region	1976	1978	1980	1981	1982	1983	1984	1985	1986	1987
All Regions	700	693	874	970	1,102	1,099	1,548	1,517	1,472	2,085
National Capital Region	245	155	215	252	300	282	475	602	498	543
Region 1. Ilocos	40	27	34	45	41	57	52	49	52	147
2. Cagayan Valley	43	26	34	46	43	28	75	60	96	53
3. Central Luzon	81	73	97	115	110	96	136	133	143	200
4. Southern Tagalog	91	110	116	97	152	166	190	176	157	244
5. Bicol	49	26	33	44	42	32	60	47	63	91
6. Western Visayas	44	64	72	72	76	58	112	90	90	167
7. Central Vuisayas	59	32	52	53	64	74	72	59	52	131
8. Eastern Visayas	57	44	42	57	38	37	143	75	78	105
9. Western Mindanao	17	26	44	28	52	43	33	67	53	66
10. Northern Mindanao	26	33	51	58	58	76	66	55	81	89
11. Southern Mindanao	17	66	51	81	94	128	100	85	96	118
12. Central Mindanao	16	11	32	22	31	22	28	19	22	50

Sources: NEDA (1986), Compendium of Social Statistics.
DOLE (1986), Yearbook of Labor Statistics.
NSO, Integrated Survey of Households (Unpublished).

Table 21
UNDEREMPLOYMENT RATE BY SEX, 1971-1987
(In %)

Year	UNDEREMPLOYMENT RATE Total	Male	Female
1971	15.0	15.8	13.3
1972	13.3	14.7	10.1
1973	12.1	12.9	8.9
1974	10.1	11.1	8.1
1975	13.3	14.4	7.5
1976	10.6	11.8	8.2
1977	17.4	18.6	14.8
1978	19.6	20.9	17.2
1980	20.9	22.6	17.6
1981	23.9	26.3	19.7
1982	25.5	28.0	21.0
1983	29.8	32.2	25.9
1984	36.4	39.3	31.5
1985	22.2	24.9	17.5
1986	28.4	31.5	23.2
1987	24.2	27.2	18.9

Sources: NEDA (1986), Compendium of Philippine Social Statistics. NSO, Integrated Survey of Households, various issues (Unpublished).

Table 22
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK
BY NUMBER OF DAYS WORKED, 1976-1986
(In 000)

	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
No. of Days Worked										
Total Underemployed	3,634	2,498	3,153	3,437	4,178	4,438	5,732	7,149	4,319	5,051
Less than 5 days				38	58	55	114	116	65	63
5-9	295	171	179	94	144	188	189	193	128	149
10-14				127	160	144	207	270	105	199
15-19				108	165	149	207	270	202	232
20-24	570	296	392	142	188	176	256	370	244	300
25-29				139	178	179	233	298	236	207
30-34				169	222	223	305	393	284	344
35-39	549	348	435	174	197	207	274	344	256	332
40-44				158	193	219	284	314	242	295
45-49				194	308	247	374	494	324	416
50-54	547	353	436	173	212	203	273	374	298	333
55-59				207	250	219	279	387	252	321
60-64	1,668	1,325	1,632	254	248	207	319	586	333	481
65 Days and Over				1,451	1,647	2,017	2,408	2,732	1,348	1,165
Did Not Work	5	4	79	3	2	2	6	6	2	5
Not Reported	-	-	-	7	6	2	5	1	-	-

NOTES:
1-Data for 1976-1986 were based on the third quarter results of ISH.
2-Data for 1979 not available.

Sources: NEDA (1986), Compendium of Philippine Social Statistics.
DOLE, Yearbook of Labor Statistics, various issues.

Table 23
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK BY REGION, 1976-1987
(In 000)

Region	1976	1978	1980	1981	1982	1983	1984	1985	1986	1987
All Regions	3,634	3,187	3,437	4,178	4,438	5,732	7,149	4,392	5,852	5,029
NCR	300	427	379	278	568	784	900	311	724	345
1	205	173	116	305	283	380	568	219	341	371
2	155	196	235	340	220	272	460	211	272	193
3	300	292	276	401	322	308	476	362	477	386
4	481	557	469	506	528	773	727	630	638	714
5	259	190	236	297	322	542	762	401	543	525
6	482	423	396	459	489	604	631	543	662	517
7	265	171	249	240	337	269	370	197	216	156
8	256	135	301	257	317	411	448	316	374	307
9	131	101	141	153	190	208	278	188	220	188
10	266	169	223	301	268	300	399	306	389	371
11	293	256	272	353	368	454	591	405	638	598
12	152	96	146	200	225	258	457	303	358	358
Not Reported	-	-	-	-	-	-	2	-	-	-

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

Table 24
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK
BY HIGHEST GRADE COMPLETED, 1976-1987
(In 000)

Highest Grade Completed	1976	1978	1980	1981	1982	1983	1984	1985	1986	1987
No Grade Completed	199	170	197	199	182	219	302	206	222	172
Elementary										
1st to 5th Grade	1,193	931	1,028	1,290	1,301	1,471	1,854	1,272	1,474	1,309
Graduate	968	832	895	1,138	1,153	1,538	1,953	1,205	1,550	1,331
High School										
1st to 3rd Year	429	392	448	521	599	775	917	609	820	738
Graduate	345	407	413	491	578	792	1,016	613	960	806
College										
Undergraduate	268	231	230	275	310	471	539	269	433	371
Graduate	206	136	215	260	309	461	564	218	391	297
Not Reported	25	88	12	5	4	5	4		1	5
Total	3,634	3,187	3,437	4,178	4,438	5,732	7,149	4,392	5,851	5,029

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

Table 25
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK
BY MAJOR OCCUPATION GROUP, 1976-1987
(In 000)

Major Occupation Group	1976	1978	1980	1981	1982	1983	1984	1985	1986	1987
Professional and Technical Works	145	154	142	187	197	239	336	126	216	180
Administrative, Executive and Managerial Workers	30	23	23	32	30	35	53	12	35	21
Clerical and Related Workers	114	117	130	127	175	252	283	81	199	121
Sales Workers	269	294	322	392	432	568	726	400	636	485
Service Workers	180	189	177	214	229	333	415	267	340	287
Agricultural, Animal Husbandry and Forestry Workers, Fisherman and Hunters	2,063	1,661	1,870	2,346	2,460	3,109	3,707	2,611	3,148	2,876
Production and Related Workers, Transport Equipment Operators and Laborers	827	743	772	878	914	1,263	1,629	892	1,277	1,050
Occupations Not Adequately Defined	6	6	-	2	1	3	-	2	-	-
Total	3,634	3,187		4,178	4,438	5,732	7,149	4,391	5851	5,029

Source: NCSO, Integrated Survey of Households (Unpublished).

The regional distribution of underemployment seems to indicate that the relatively poor and agricultural regions experienced high underemployment rates (Table 28). This conforms with the earlier observation that underemployment is most prevalent in agriculture on account of the seasonality of farm work. Specifically, Regions I, V, VI, X, XI & XII experienced rates which were significantly higher than the national rate.

B. Labor Productivity, 1970-1987

Measured roughly by output per worker, labor productivity has consistently increased from 1970 to 1980, posting average annual growth rates of 3.4 percent and 2.7 percent for the past two decades, respectively (Tables 29 and 30). From 1981, labor productivity started to decline until 1986 afterwhich a slight improvement was observed in 1987. From a high level of ₱5,700 per worker in 1976, productivity went down to ₱4,410 per worker in 1986, a figure close to the 1974 level of ₱4,430 per worker. The decline in productivity especially after 1982 manifests the decline in output as a result of the economic slowdown experienced by the country especially in the periods 1983-1984 and 1984-1985 when real GDP declined by -5.7 percent and -4.7, respectively.

The overall trend in national labor productivity can be better understood if we look closely at the sectoral trends. Agriculture, for example, has shown a generally increasing trend up to about 1980. However, it has remained relatively stable since then. Absolute levels have remained low from ₱1,860 in 1971 to only ₱2,750 per worker in 1987, although the rate of increase during the earlier periods was relatively high compared to the other sectors, except for the industrial sector in the period 1971-80.

The industrial sector as a whole likewise experienced increasing labor productivity during the first two decades, especially during 1971-1980 when the average annual growth rate was 6.7 percent. The highest level of ₱14,450 per worker was attained in 1982, afterwhich the levels started to decline continuously until 1987. Average annual rate of decline was 6.6 percent for 1981-1985. The largest contributors to this decline were mining and quarrying and construction, whose average annual rates of decline were 13.6 percent and 16.6 percent, respectively. Mining and quarrying experienced the steepest decline in 1983 and 1984, the periods when metal prices in the world market were very low. This period was also marked by large increases in employment. Hence, from a high value of ₱33,500 per worker in 1977, productivity level plunged to ₱10,420 per worker in 1987. Similarly, construction has shown large productivity declines in 1983-1986. Gross value added for this sector declined tremendously during this period on account of the economic crisis which drastically slowed down economic activities

Table 26
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK
BY TYPE OF INDUSTRY AND TOTAL QUARTERLY EARNINGS, 1976-1986
(In 000)

	Total Underemployed	No Earnings	Under 500	500-999	1000-1999	2000-2999	3000-3999	4000-4999	5000-7499	7500-9999	10000-14999	15000-19999	20000-24999	25000-29999	30000-39999	40000-49999	50000 & over
1976						b/			c/		d/						
All Industries	3,634	826	1,311	808		645			26		18						
Agricultural	2,139	758	801	310		245			15		10						
Indusrial	1,078	60	387	384		234			7		6						
Services	404	9	117	112		162			3		1						
Not Reported	12	a/	6	4		2			a/		a/						
1978						b/			c/		d/						
All Industries	3,187	1,521	673	386		577			22		6						
Agricultural	1,674	1,145	372	105		51			a/		a/						
Industrial	571	102	133	129		197			6		3						
Services	937	274	165	151		328			16		3						
Not Reported	4	a/	3	1		a/			a/		a/						
1980																	
All Industries	3,437	743	877	640	651	282	108	54	43	17	11	7	1	2			
Agricultural	1,893	666	558	323	220	66	29	9	12	6	3	-	-	-			
Industrial	612	23	121	125	183	93	27	19	11	5	2	2	-	2			
Services	931	54	197	191	248	124	53	27	20	6	5	6	-	1			
Not Reported	2	-	1	1	-	-	-	-	-	-	-	-	-	-			
1981																	
All Industries	4,178	999	1,039	769	735	346	119	54	67	23	13	6	4	2			
Agricultural	2,361	889	663	380	264	87	30	12	26	8	1	1	-	-			
Industrial	651	28	139	149	193	82	26	11	10	6	2	1	2	-			
Services	1,167	82	237	240	278	177	63	31	31	8	10	5	2	2			
Not Reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
1982																	
All Industries	4,438	989	850	725	823	498	259	98	99	49	28	12	4	5			
Agricultural	2,477	862	560	415	354	137	68	29	30	14	5	3	1	1			
Industrial	692	38	125	106	178	115	64	20	25	8	7	4	2	1			
Service	1,269	89	165	204	290	246	128	50	44	27	17	6	1	3			
Not Reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
1983																	
All Industries	5,732	1,242	1,260	920	1,085	616	330	133	117	53	23	12	6	6			
Agricultural	3,033	1,073	869	507	349	121	42	28	31	7	2	2	-	1			
Industrial	975	44	164	147	247	183	106	34	26	14	5	3	1	2			
Services	1,724	125	236	266	409	312	183	71	60	32	15	7	5	3			
Not Reported	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

Table 26 (cont'd)

	Total Underemployed	No Earnings	Under 500	500-999	1000-1999	2000-2999	3000-3999	4000-4999	5000-7499	7500-9999	10000-14999	15000-19999	20000-24999	25000-29999	30000-39999	40000-49999	50000 & over
1984																	
All Industries	7,140	1,339	1,077	1,071	1,517	827	593	312	204	96	58	19	10	2	11	3	10
Agricultural	3,751	1,129	694	619	708	251	118	96	73	38	17	4	3	1	-	-	-
Industrial	1,263	78	164	190	321	184	167	85	45	11	9	1	2	-	4	-	2
Service	2,126	131	219	263	488	393	308	131	86	42	31	10	5	1	7	3	8
Not Reported	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1985																	
All Industries	4,392	844	705	762	914	522	315	155	91	41	22	12	2	2	-	-	5
Agricultural	2,628	728	454	454	509	249	117	49	39	13	6	7	-	-	-	-	3
Industrial	643	43	84	127	138	111	62	36	20	12	7	2	-	-	-	-	1
Services	1,122	74	168	181	267	162	137	70	31	16	8	3	2	2	-	-	1
Not Reported	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1986																	
All Industries	5,851	1,052	733	998	1,275	651	442	273	250	91	47	23	7	1	3	1	3
Agricultural	3,184	910	468	575	684	268	118	47	64	30	16	3	-	-	1	-	-
Industrial	894	45	111	140	219	140	91	70	45	18	6	6	1	-	1	-	1
Services	1,754	97	154	283	372	243	233	157	140	32	20	12	6	1	1	1	2
Not Reported	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a/ Not reported in sample households.
b/ 1,000-4,999
c/ 5,000-9,999
d/ 10,000 & over

Source: NCSO, Integrated Survey of Households (Published and Unpublished).

Table 27
NUMBER OF EMPLOYED PERSONS WANTING ADDITIONAL WORK
BY REGION, 1976-1987
(In 000)

Region	1976	1978	1980	1981	1982	1983	1984	1985	1986	1987
All Regions	3,634	3,187	3,437	4,170	4,430	5,732	7,149	4,392	5,852	5,029
NCR	308	427	379	270	560	784	980	311	724	345
1	205	173	116	305	283	380	560	219	341	371
2	155	196	235	340	220	272	460	211	272	193
3	380	292	276	481	322	388	476	362	477	306
4	481	557	469	506	528	773	727	630	630	714
5	259	190	236	297	322	542	762	401	543	525
6	482	423	396	459	489	604	631	543	662	517
7	265	171	249	248	337	269	370	197	216	136
8	256	135	301	257	317	411	440	316	374	307
9	131	101	141	153	190	208	270	188	220	108
10	266	169	223	301	268	388	399	306	309	371
11	293	256	272	353	368	454	591	405	630	590
12	152	96	146	200	225	258	457	303	350	350
Not Reported	-	-	-	-	-	-	2	-	-	-

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

Table 28
UNDEREMPLOYMENT RATE BY REGION
1976-1987
(In Percent)

Region	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986	1987
All Regions	25.5	17.4	19.8	20.9	23.9	25.5	29.8	36.4	22.2	28.4	24.2
NCR	17.4	18.8	20.9	20.6	14.5	28.7	38.5	45.1	19.7	35.3	14.5
1	19.0	15.4	14.0	19.9	23.8	22.5	28.1	41.3	16.9	24.6	26.3
2	23.1	19.1	25.5	28.2	38.3	25.0	27.5	44.7	21.5	24.4	18.3
3	27.4	13.2	19.4	18.1	30.5	20.9	23.2	27.5	20.2	25.0	20.2
4	20.3	20.1	26.5	22.3	22.5	23.7	31.6	31.8	25.1	24.0	26.2
5	27.2	20.4	16.0	18.9	22.5	24.0	35.2	51.2	26.1	35.7	34.1
6	32.5	27.3	25.5	24.2	27.5	28.5	30.2	33.9	20.6	34.0	26.7
7	21.3	15.2	12.4	18.2	16.6	22.9	16.4	21.8	11.7	12.3	9.2
8	29.9	17.9	14.6	30.5	25.3	31.6	36.9	34.0	24.7	28.0	24.4
9	19.6	9.4	14.6	18.8	19.9	23.8	24.8	29.0	19.7	21.4	18.1
10	32.4	16.4	19.2	23.5	27.8	26.8	31.6	31.1	24.4	29.9	28.9
11	30.9	12.3	24.5	21.9	26.5	27.7	31.6	39.2	26.0	40.4	38.1
12	23.2	10.4	13.9	18.6	24.2	27.1	28.2	49.6	32.3	35.4	35.8

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

Table 29
LABOR PRODUCTIVITY BY MAJOR INDUSTRY, 1970-1987
(In Thousand Pesos Per Worker)

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986	1987
I. Agriculture, Fishery and Forestry	2.42	2.40	2.24	2.43	2.12	2.34	2.57	2.76	2.57	2.81	2.70	2.85	2.51	2.62	2.71	2.65	2.75
II. Industrial Sector	8.02	7.90	8.73	9.60	10.36	10.28	11.54	13.16	12.49	13.10	13.74	14.45	13.01	11.06	10.31	10.27	10.07
Mining and Quarrying	21.43	22.89	23.21	22.58	31.89	26.76	18.41	33.50	29.66	23.78	27.19	27.24	19.27	12.72	13.81	10.39	10.42
Construction	3.97	4.04	5.35	4.66	6.78	8.99	12.28	11.50	11.46	12.14	13.22	13.38	11.03	7.73	6.10	5.38	5.22
Manufacturing	8.73	8.56	9.13	10.76	10.60	10.02	10.94	12.09	12.11	12.78	13.28	14.09	13.30	12.08	11.21	11.40	11.30
Electricity, Gas and Water	11.94	7.59	11.70	13.54	13.20	13.20	13.29	11.95	15.36	15.87	15.14	20.45	15.28	15.05	19.63	24.95	23.56
III. Service Sector	6.64	5.39	5.63	5.82	6.16	6.09	6.49	6.38	5.98	6.55	6.13	6.34	5.96	5.25	4.74	4.68	4.86
Transport, Storage and Communication	4.74	4.78	5.85	5.99	6.64	7.34	6.67	6.22	8.44	6.59	6.87	6.81	6.34	5.76	5.32	6.07	5.57
Trade/Commerce a/	13.25	7.44	8.15	8.28	8.62	8.68	10.73	11.69	10.37	9.69	8.64	8.85	8.42	6.99	6.11	5.74	5.99
Other Services	3.70	3.00	3.87	3.68	4.01	3.81	3.95	3.89	3.41	4.18	4.02	4.24	3.88	3.63	3.39	3.37	3.41
National (GDP/worker)	4.49	4.25	4.24	4.59	4.43	4.71	5.12	5.44	5.14	5.64	5.51	5.70	5.20	4.80	4.54	4.41	4.61

a/ Includes wholesale and retail trade, financing, insurance, real estate and business services.

Sources of basic data:
NEDA, Philippine Statistical Yearbook, various issues.
DOLE, Yearbook of Labor Statistics, various issues.

Table 30
AVERAGE GROWTH RATE OF LABOR PRODUCTIVITY

	1970-1975	1975-1980	1980-1985	1985-1987
I. Agriculture, Fishery and Forestry	0.85	4.92	-0.53	0.78
II. Industrial Sector	5.23	6.52	-4.34	-1.19
Mining and Quarrying	6.13	4.87	-9.03	-12.23
Construction	19.88	8.96	-11.48	-7.94
Manufacturing	3.12	6.62	-2.39	0.40
Electricity, Gas and Water	6.19	5.62	6.02	10.76
III. Service Sector	-1.25	2.05	-6.12	1.30
Transport, Storage and Communication	9.40	-2.48	-4.07	2.85
Trade/Commerce a/	-5.59	3.70	-8.56	-0.84
Other Services	1.83	3.06	-4.00	0.39
National (GDP/worker)	1.10	4.79	-4.15	0.98

a/ Includes wholesale and retail trade, financing, insurance, real estate and business services.

in the economy starting in 1983. Construction's labor productivity was reduced to ₱5,200/worker in 1987 from a high value of ₱13,380/worker in 1982. The 1987 level has drastically gone down to its 1968 level. Manufacturing likewise exhibited a similar trend in labor productivity movements. Although the sector was also hard hit by the crisis, labor productivity has not declined as much as in the other two sectors. For one, the decline in output was not as much, and employment has not been growing significantly. In fact, even during the early 80s, employment in manufacturing has already experienced some declines. Finally, labor productivity in the utilities sector showed a generally increasing trend on the average, with some erratic movements especially during the early 60s. Productivity levels were high, especially during the 1980s, with the peak level of ₱24,950/worker achieved in 1986.

The services sector as a whole also experienced increasing labor productivity during the first two decades under study. However, the rate of increase was generally lower than the other sectors. The productivity levels were relatively lower than the sub-sectors in the Industrial Sector, but they were higher than those in agriculture. Highest level was attained in 1982, with a value of ₱5,700/worker, but this continuously declined until 1986, hitting a low ₱4,410/worker, a level comparable with those during the late 60s and early 70s. Looking at the subsectors, wholesale and retail trade experienced a big drop in labor productivity in 1970, but this continuously rose until 1977 afterwhich it again declined. This sector's productivity levels were the highest in the service sector with the highest level of ₱13,250/worker achieved in 1970. Similarly, labor productivity in the transport, storage and communication sector followed an increasing trend during the first half of the 70s. Productivity, however, tended to remain relatively stable for the next seven years, afterwhich it started to significantly decline after 1983. Other services, which includes community, social and personal services, registered the lowest productivity level, and the movement over the years followed those of the other sub-sectors.

C. Wages

The analysis of the trends and structure of wages in the Philippine labor market will be done separately for the agricultural and nonagricultural sectors. Data used in the analysis of agricultural wages are taken from the annual farm surveys conducted by the Bureau of Agricultural Economics. For nonagricultural wages, data from the surveys conducted by the CPCB and the National Wages Council will be utilized. 12/ The

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12/ The CB series was not used even if it gives annual data, since data collection was discontinued in 1980. Also, the NWC and CPCB wage data include both basic wage and cost of living allowances of workers while the CB data includes only the farmer.

two sets of wage data are not exactly comparable since different sets of occupation were included in the surveys. The latter data set nevertheless provides more recent information on wages for a similar set of broad occupational categories. 13/ The CPCB surveys cover the period from 1960 to 1981 while the NWC gives data from 1985 to 1987. An additional survey ideally meant to continue the series of wage data for CPCB was conducted in 1985. However, we were informed that the data gathered are not comparable with the previous series due to methodological differences.

1. Agricultural Wages, 1974-1987

Table 31 presents nominal and real wages in the agricultural sector by crop from 1974 to 1987. Obviously, nominal wages exhibited an increasing trend across crops during the period and the increase was prominently high during the first half of the 80s (Table 31). This was especially true for palay farmers whose nominal wages increased by about 43 percent in 1983-84 (Table 32). Similarly, corn and coconut farmers also experienced high nominal wage increases during this period. Sugar farmers had the biggest increase in 1984-1985. After 1985, the rate of increase in nominal wages for all crops started to decline. If we go back to the earlier periods, nominal wage rate increases peaked in 1975-76, afterwhich the rate of increase started to decline until 1980. The behavior of nominal wages seems to conform very well with the growth of the value of crop production given in Table 34. In particular, the high rates of increase in nominal wages towards the mid-1970s was accompanied by a relatively high rate of expansion in crop production, especially for palay and corn. Similarly, the period when peak rates were achieved, i.e., 1984 and 1985, was also marked by very high rates of growth in production. The imposition of minimum wage increases in the agricultural sector may have helped sustain the increase in nominal wages, but the sharp increases were more in consonance with increases in production.

The behavior of real wages, however, shows a different pattern. From high growth rates in the period 1974 to 1976, real wages of farm workers declined from 1976 to 1981, with the biggest declines occurring between 1978 and 1980 (Table 33-A). After 1981, real wages started to move up, except for a significant decline in 1984. This big decline is attributable to the very high inflation rate experienced during the period. In fact, inflation rate for all the regions outside NCR in 1984 was 50.5 percent. The increase in real wages in agriculture may have been brought about by the significant decline in inflation rates

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13/ Included in this study are the reported wage rates for Metro Manila only. The revised series was not available yet as of this writing.

Table 31
DAILY WAGE RATES WITHOUT MEALS BY CROP, PHILIPPINES: 1974-1987
(Pesos Per Day)

YEAR	CPI (1978=100)	PALAY NOMINAL	PALAY REAL	CORN NOMINAL	CORN REAL	COCONUT NOMINAL	COCONUT REAL	SUGARCANE NOMINAL	SUGARCANE REAL	ALL CROPS NOMINAL	ALL CROPS REAL
1974	71.8	5.56	7.74	5.56	7.74	6.46	9	5.88	8.19	-	-
1975	76.6	6.59	8.6	6.41	8.37	7.33	9.57	7.78	10.16	-	-
1976	84.7	8.97	10.59	8.77	10.35	9.17	10.83	7.9	9.33	-	-
1977	93.3	9.86	10.57	9.35	10.02	9.95	10.66	9.96	10.68	-	-
1978	100	10.42	10.42	9.96	9.96	10.18	10.18	11	11	10.39	10.39
1979	117.2	10.71	9.14	10.38	8.86	10.62	9.06	11.5	9.81	10.68	9.11
1980	138.4	11	7.95	10.66	7.7	11.59	8.37	11.97	8.65	11.15	8.06
1981	156.8	11.91	7.6	10.8	6.89	13.45	8.58	12.88	8.21	12.38	7.9
1982	172.6	13.42	7.78	12.74	7.38	15.6	9.04	15.8	9.15	13.9	8.05
1983	189.3	15.85	8.37	15.2	8.03	17.75	9.38	18.95	10.01	16.33	8.63
1984	285.4	22.64	7.93	18.65	6.53	24	8.41	21.4	7.5	21.24	7.44
1985	352.7	30.2	8.56	22.07	6.26	28.18	7.99	26.75	7.58	27.46	7.79
1986	352.3	31.8	9.03	27.04	7.68	31	8.8	28.9	8.2	29.69	8.43
1987	356.5	32.44	9.1	28.01	7.86	35.36	9.92	33.93	9.52	32.43	9.1

Table 32
GROWTH RATES OF NOMINAL AND REAL WAGES WITHOUT MEALS
BY CROPS, CY 1974-1987
(In Percent)

CY	PALAY	CORN	COCONUT	SUGARCANE	ALL CROPS
1974-1975	18.5 (11.1)	15.3 (8.1)	13.5 (6.5)	32.3 (24.1)	-
1975-1976	36.8 (23.1)	36.8 (23.7)	25.1 (13.2)	1.5 (-8.2)	-
1976-1977	9.9 (-0.2)	6.6 (-3.2)	8.5 (-1.6)	26.1 (14.5)	-
1977-1978	5.7 (-1.4)	6.5 (-0.6)	2.3 (-4.5)	10.4 (3.0)	-
1978-1979	2.8 (-12.3)	4.2 (-11.0)	4.3 (-11.0)	4.5 (-11.8)	2.8 (-12.3)
1979-1980	2.7 (-13.0)	2.7 (-13.1)	9.1 (-7.6)	4.1 (-11.8)	4.4 (-11.5)
1980-1981	8.3 (-4.4)	1.3 (-10.5)	16.0 (2.5)	7.6 (-5.1)	11.0 (-2.0)
1981-1982	12.7 (2.4)	18.0 (7.1)	16.0 (5.4)	22.7 (11.4)	12.3 (1.9)
1982-1983	18.1 (7.6)	19.3 (8.8)	13.8 (3.8)	19.9 (9.4)	17.5 (7.2)
1983-1984	42.8 (-5.3)	22.7 (-18.7)	35.2 (-10.3)	12.9 (-25.1)	30.1 (-13.8)
1984-1985	33.4 (7.9)	18.3 (-4.1)	17.4 (-5.0)	25.0 (1.1)	29.3 (4.7)
1985-1986	5.3 (5.5)	22.5 (22.7)	10.0 (10.1)	8.0 (8.2)	8.1 (8.2)
1986-1987	2.0 (.08)	3.6 (2.3)	14.1 (12.7)	17.4 (16.1)	9.2 (7.9)
1974-1978	87.4 (32.3)	79.1 (28.7)	57.6 (13.1)	87.1 (34.3)	-
1978-1982	28.8 (-25.3)	27.9 (-25.9)	53.2 (-11.2)	43.6 (-16.8)	38.8 (-22.5)
1982-1987	141.7 (17.0)	119.9 (6.5)	126.7 (9.7)	114.7 (4.0)	113.3 (13.0)

Table 33-A
AVERAGE CHANGE OF MONEY AND REAL WAGES IN THE AGRICULTURAL SECTOR FOR ALL CROPS WITHOUT MEALS, PHILIPPINES, 1978-1987
(In Pesos Per Day, Except Percent)

YEAR	NOMINAL WAGE AVE. ABSOLUTE CHANGE	NOMINAL WAGE AVE. PERCENTAGE CHANGE	REAL WAGE (1978=100) AVE. ABSOLUTE CHANGE	REAL WAGE (1978=100) AVE. PERCENTAGE CHANGE
1978-1979	0.29	2.8	-1.28	-12.3
1979-1980	0.47	4.4	-1.05	-11.5
1980-1981	1.23	11.0	-.016	-2.0
1981-1982	1.52	12.3	0.15	1.9
1982-1983	2.43	17.5	0.58	7.2
1983-1984	4.91	30.1	-1.19	-13.8
1984-1985	6.16	29.3	.035	4.7
1985-1986	2.23	8.1	0.64	8.2
1986-1987	2.74	9.2	0.67	7.9

after 1984. The increase in labor productivity especially after 1986 may have also contributed to this increase, but for the earlier periods especially for the first half of the 80s, this was not so since labor productivity from 1981-1985 declined at an annual average of 0.21 percent. The expected positive effects of the reforms introduced in the agricultural sector cannot possibly account for such increases. What is more plausible as a factor which sustained real wage increases in this sector was the fast increase in nominal wages on account of the series of minimum wage adjustments introduced during this period.

It is also instructive at this point to see how real wages vary across crops and across regions. Table 33-B gives estimates of wage dispersion across crops. A widening trend in wage differentials is evident for the period 1978-1987 except in 1986. One possible explanation for this behavior is the differential growth rates in nominal wages in the different crop groups. For example, we observe very high growth rates in nominal wages among palay farmers relative to the other crop farmers. However, in the case of real wages, the dispersion fluctuated: it narrowed from 1978 to 1979, then widened in 1980 to 1983, and finally narrowed and widened alternately from 1984 to 1987. Across regions, however, there is a generally narrowing trend in regional wage differentials (Tables 35-A to 35-C).

2. Non-agricultural Wages and Earnings, 1960-86

Using data from the OCPC surveys covering selected occupations in Metro Manila from 1960 to 1981, Tables 36 and 37 give the money and real wages of three types of workers namely, manual, clerical and professional. 14/ Obviously again, nominal wages for the three occupational groups have risen over the years. However, real wages fluctuated. For example, real wages for laborers and clerical workers declined from the 60s up to the mid-70s, but have risen since then. In the case of professionals, real wages have consistently declined except for the years 1963 and 1966. This behavior seems to reflect the increase in the supply of professionals relative to the demand. Similarly, data from the National Wages Council indicate substantial increases in the average daily money wage of workers in Metro Manila. However, real wages significantly declined from 1982 after a long period of increase from 1975. Finally, the most recent figures on wages taken from NWC in Table 41 indicates that for 1986 and 1987, real wages of laborers have generally decreased, while those for clerical and administrative workers

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14/ Several occupations were included in the surveys. For the purposes of this study, three broad occupational groups were selected which included the more specific occupations chosen based on their inclusion in all the surveys. Sanchez (1986) provided the classification and data for this part of the study.

Table 33-B
AVERAGE AGRICULTURAL WAGES WITHOUT MEALS FOR ALL CROPS
1978-1987

YEAR	AVERAGE NOMINAL	WAGE REAL (1978=100)	WAGE NOMINAL	DISPERSION REAL (1978=100)
1978	10.39	10.39	0.45	0.45
1979	10.68	9.11	0.49	0.41
1980	11.15	8.06	0.59	0.42
1981	12.38	7.90	1.16	0.72
1982	13.90	8.05	1.54	0.89
1983	16.33	8.63	1.72	0.91
1984	21.24	7.44	2.28	0.79
1985	27.24	7.79	3.46	0.98
1986	29.69	8.43	2.15	0.61
1987	32.43	9.10	3.18	0.89

Table 34
VALUE OF CROP PRODUCTION
(In ₱M)

Year	Palay		Corn		Sugar		Coconut	
1974	5,180.0		1,504.6		3,020.8		3,785.5	
1975	5,579.5	(7.7)	2,100.9	(39.6)	2,988.4	(-1.1)	2,895.5	(-23.5)
1976	6,200.0	(11.1)	2,394.6	(14.0)	3,202.2	(7.2)	2,012.5	(-30.5)
1977	6,890.1	(11.1)	2,605.3	(8.8)	6,176.4	(92.9)	4,044.4	(101.0)
1978	7,093.5	(2.9)	2,671.4	(2.5)	3,661.8	(-40.7)	4,398.5	(8.8)
1979	7,573.9	(6.8)	2,851.1	(6.7)	3,762.5	(2.8)	8,524.9	(93.8)
1980	8,376.6	(10.6)	3,024.0	(6.1)	4,226.7	(12.3)	9,263.8	(8.7)
1981	9,304.5	(11.1)	3,501.7	(15.8)	8,558.8	(102.5)	6,332.1	(-31.6)
1982	10,924.1	(17.4)	3,985.7	(13.8)	6,881.3	(-19.6)	5,354.3	(-15.4)
1983	10,721.9	(-1.8)	3,949.3	(-0.9)	7,219.0	(4.9)	3,793.9	(-29.1)
1984	15,311.8	(42.8)	5,166.8	(30.8)	11,150.0	(54.4)	12,270.1	(223.4)
1985	24,969.5	(63.1)	9,542.6	(84.7)	9,278.0	(-16.8)	12,628.7	(2.9)
1986	27,983.1	(12.1)	9,842.1	(3.1)	7,662.9	(-17.4)	4,496.1	(-64.4)

Note: Numbers in parenthesis are annual growth rates.

Source: NEDA, Statistical Yearbook 1987.

Table 35-A

RATIOS OF REAL DAILY WAGES WITHOUT MEALS OF PALAY FARM WORKERS IN THE VARIOUS REGIONS TO THAT OF THE AVERAGE FOR THE PHILIPPINES: 1974-1986

REGION	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
ILOCOS	0.98	1.01	1.06	1.02	1.03	1.08	1.11	1.03	1.11	1.05	1.07	1.14	1.10
CAGAYAN VALLEY	0.82	0.93	0.97	0.96	1.02	1.02	1.02	0.93	1.01	0.95	1.06	1.02	0.96
CENTRAL LUZON	1.00	1.13	1.09	1.04	1.08	1.10	1.20	1.29	1.38	1.29	1.23	1.17	1.10
SOUTHERN TAGALOG	1.11	1.15	1.06	1.07	1.10	1.09	1.34	1.42	1.64	1.42	1.37	1.32	1.26
BICOL	0.85	0.94	0.97	1.00	0.98	0.92	0.91	0.93	0.97	0.95	8.96	1.01	0.98
W. VISAYAS	0.90	0.94	0.93	0.94	0.98	0.97	0.93	0.85	0.88	0.77	0.88	0.88	0.85
C.VISAYAS	0.81	0.89	0.94	0.93	0.98	0.96	0.93	0.86	0.85	0.79	0.75	0.75	0.77
E. VISAYAS	0.94	0.93	0.96	0.92	0.95	0.96	1.00	0.93	0.97	0.82	0.86	0.85	0.82
W. MINDANAO	0.84	0.85	0.96	0.92	0.94	0.94	0.94	0.94	0.98	0.99	0.97	0.99	1.02
N. MINDANAO	1.01	0.96	0.93	0.94	0.96	0.96	0.98	0.86	0.82	0.83	0.88	0.98	0.89
S. MINDANAO	0.94	1.01	0.93	0.86	0.88	0.91	0.90	0.85	0.88	0.94	0.95	0.92	0.89
C. MINDANAO	1.07	1.14	0.98	0.95	0.96	0.93	0.93	0.88	0.92	0.92	1.00	0.93	0.86
PHILIPPINES	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 35-B

RATIOS OF REAL DAILY WAGES WITHOUT MEALS OF CORN FARM WORKERS IN THE VARIOUS REGIONS TO THAT OF THE AVERAGE FOR THE PHILIPPINES: 1974-1986

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
ILOCOS	1.10	1.06	1.01	1.13	1.14	1.18	1.26	1.20	1.02	1.13	1.17	1.06	1.00
CAGAYAN VALLEY	1.17	1.16	1.03	1.03	1.05	1.06	1.02	1.14	0.98	1.15	1.21	1.09	1.02
CENTRAL LUZON	1.27	1.19	1.00	1.05	1.05	1.10	1.14	1.34	1.16	1.16	1.11	1.09	1.00
SOUTHERN TAGALOG	1.08	1.14	0.94	1.02	1.10	1.17	1.20	1.26	1.09	1.22	1.32	1.20	1.14
BICOL	1.05	0.90	0.87	1.06	1.00	0.98	0.97	1.07	0.95	1.04	0.99	1.02	0.91
W. VISAYAS	0.85	1.09	0.98	0.97	1.08	1.04	0.99	0.99	0.93	0.92	0.81	0.85	0.78
C. VISAYAS	0.84	0.84	0.86	0.96	0.95	0.92	0.89	0.86	0.89	0.86	0.78	0.79	0.85
E. VISAYAS	1.03	0.92	1.00	0.98	0.97	0.98	0.96	1.04	0.96	0.99	0.98	1.00	0.93
W. MINDANAO	0.96	0.83	0.95	0.93	0.91	1.02	0.95	0.98	1.02	0.98	0.88	0.88	0.88
N. MINDANAO	1.15	1.00	0.92	0.92	0.96	0.96	0.98	0.91	0.85	0.86	0.93	0.97	0.92
S. MINDANAO	1.12	1.06	1.04	1.03	1.02	1.03	0.96	1.00	0.99	1.05	1.01	0.98	0.96
C. MINDANAO	1.18	1.25	1.00	1.04	1.03	1.02	1.03	1.05	1.01	1.05	1.10	1.06	1.03
PHILIPPINES	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 35-C

RATIOS OF REAL DAILY WAGES WITHOUT MEALS OF COCONUT FARM WORKERS IN THE VARIOUS REGIONS
TO THAT OF THE AVERAGE FOR THE PHILIPPINES: 1974-1986

REGION	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
ILOCOS	-	-	-	-	-	-	-	-	-	-	1.26	1.16	1.03
CAGAYAN VALLEY	-	-	-	-	-	-	-	-	-	-	0.94	0.89	0.95
CENTRAL LUZON	-	-	-	-	-	-	-	-	-	-	1.12	1.07	-
SOUTHERN TAGALOG	1.12	1.10	1.10	1.08	1.10	1.20	1.25	1.21	1.33	1.40	1.41	1.34	1.20
BICOL	1.02	1.04	1.06	1.02	0.98	0.91	0.87	0.94	0.97	0.93	0.93	0.94	0.93
W. VISAYAS	0.98	1.09	0.93	0.97	0.94	0.98	0.85	0.95	1.00	0.80	0.82	0.80	0.82
C. VISAYAS	0.78	0.92	0.89	0.99	0.96	0.95	0.95	0.97	0.78	0.74	0.75	0.79	-
E. VISAYAS	0.89	0.90	0.97	0.94	0.95	1.01	0.94	1.00	0.97	0.94	0.97	0.97	0.99
W. MINDANAO	1.13	0.85	1.06	1.05	1.05	1.02	0.97	1.00	0.98	0.93	1.09	1.10	1.20
N. MINDANAO	1.08	1.02	1.03	1.12	1.09	1.03	0.94	0.94	0.95	0.98	1.02	1.04	1.11
S.MINDANAO	1.10	1.02	0.96	1.08	1.00	0.97	0.97	1.03	1.05	0.97	0.88	0.89	0.87
C. MINDANAO	1.07	0.99	0.94	0.96	0.96	0.91	0.94	1.05	1.03	0.99	0.95	1.07	1.06
PHILIPPINES	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 36
MONEY WAGES OF LABORERS, CLERICAL WORKERS AND PROFESSIONALS IN THE PHILIPPINES, 1960 TO 1981
(Pesos per Worker per Day)

Year	Money Wage (Pesos) a/			Money Wage Index (Percent) (1960 = 100)		
	Laborers	Clerical Workers b/	Professionals c/	Laborers	Clerical Workers	Professionals
1960	5.10	11.70	18.20	100	100	100
1963	5.50	11.20	18.00	108	96	99
1966	7.50	13.70	24.85	147	117	136
1969	7.90	17.45	28.60	155	149	157
1971	10.40	21.60	35.40	204	185	194
1973	12.50	22.30	42.80	245	191	235
1976	16.60	32.00	61.90	325	274	340
1979	25.00	46.30	82.70	490	396	454
1981	36.65	64.30	105.10	719	550	577

a/ The original wage and salary data are expressed in annual terms.

b/ Money wages of clerical workers = average wage of the five major occupations classified as clerical by the OCPC survey (cashier, clerk, accounting machine operator, stenographer and storekeeper.

c/ Money wages of professionals = average wage or salary of the four major occupations classified as professional by the OCPC survey (lawyer, accountant, engineer, and physician).

Source: Sanchez 1986 (Taken from OCPC Wage and Salary Survey, various survey years).

Table 37
REAL WAGES OF LABORERS, CLERICAL WORKERS AND PROFESSIONALS IN THE PHILIPPINES,
1960 TO 1981
(Pesos per Worker per Day, 1960 = 100)

	Real Wage			Real Wage Index (1960 = 100)		
Year	Laborers	Clerical Workers	Professionals	Laborers	Clerical Workers	Professionals
1960	5.10	11.70	18.20	100	100	100
1963	4.70	9.60	15.40	92	82	85
1966	5.50	10.00	18.10	108	85	99
1969	5.30	11.70	19.10	104	100	105
1971	5.00	10.30	16.90	98	88	93
1973	4.70	8.40	16.20	92	72	89
1976	4.00	7.70	15.00	78	66	82
1979	4.40	8.20	14.60	86	70	80
1981	4.90	8.60	14.00	96	74	77

Source: Sanchez 1986 (Taken from OCPC Wage and Salary Survey, various survey years).

Table 38
AVERAGE MONTHLY WAGE RATES BY INDUSTRY, METRO MANILA:
1985-1987
(In Pesos)

	1985	1986	1987 a/
I. Manufacturing			
A. Food Manufacturing			
slaughtering, preparing and preserving meat	1629.8	1449.6	1910
canning and preserving fruits and vegetables	1523.5	1487.3	1832
canning, preserving and processing of fish, crustace and other sea foods	1661.6	2019.2	1694.2
manufacture of vegetable and animal oils and fats	1749.7	1716.5	1713.2
manufacture of cocoa, chocolate and sugar confectionery	1959.7	1933.3	1789.3
B. Beverage Manufacturing	2102.8	2117.7	4157
C. Textiles			
spinning, weaving, texturizing and finishing textiles	1435	1303.9	1579.3
D. Paper and Paper Products	1636.6	1756.1	1877.3
E. Printing, Publishing and	2044.8	1952.5	1821.7
F. Industrial Chemicals			
drugs and medicines	3047	4057.5	5289.2
G. Rubber Products			
tire and tube manufacturing	2461.2	2436.6	3784.8
H. Iron and Steel Basic Industries	1656.1	1919.1	1931.4
I. Fabricated Metal Products	1636.5	1757.2	1796.2
J. Machinery Except Electrical			
agricultural machinery and equipment	1436.5	1570.5	2108.2
K. Electrical Machinery Apparatus Appliances and Supplies			
radio, TV & Communication	2025.8	2052	2074.8
L. Transport Equipment			
shipbuilding and repairing	1606.8	1528.8	1611.2
manufacture and assembly of motor vehicles	1729.5	1835.2	1889.0
II. Electricity, Gas & Water			
Distributing electricity to consumers	------		

Table 39
AVERAGE DAILY MONEY AND REAL WAGE IN METRO MANILA
(1972 = 100)

Year	Money Wage		Real Wage	
1972	8.00		8.00	
1973	8.00	(0.00)	7.02	(-12.2)
1974	8.82	(10.2)	5.80	(-17.4)
1975	10.65	(20.7)	6.47	(11.6)
1976	12.09	(13.5)	6.92	(7.0)
1977	14.40	(19.1)	7.64	(10.4)
1978	15.74	(9.3)	7.76	(1.6)
1979	20.48	(30.1)	8.49	(9.4)
1980	27.39	(33.7)	9.64	(13.5)
1981	31.37	(14.5)	9.87	(2.4)
1982	31.82	(1.4)	8.90	(-10.9)
1983	34.22	(7.5)	8.64	(-2.9)
1984	48.47	(41.6)	8.19	(-5.2)
1985	57.08	(17.8)		

Note: Numbers in parenthesis are growth rates in percent.

Source: Table 4, Oshima *et al*., (1986).
National Wages Commission.

Table 40
RATIO OF SOME OCCUPATIONS' NOMINAL WAGES TO THOSE OF LABORERS IN
METRO MANILA, 1960-1981

Occupation	Survey Year 1960	1963	1966	1969	1971	1973	1976	1979	1981
I. Clerical and Administrative									
1. Accounting Machine Operator	1.80	2.23	2.15	2.81	2.50	1.72	1.82	1.83	1.76
2. Cashier	2.61	2.47	2.11	2.72	2.62	2.30	2.79	2.66	2.59
3. Clerk	1.43	1.66	1.55	1.73	1.60	4.19	1.42	1.45	1.31
4. Personnel Officer	5.00	4.60	3.51	4.30	3.80	4.51	4.62	3.60	3.31
5. Record Officer	2.69	2.50	2.04	3.30	3.12	3.06	2.15	3.07	1.90
6. Stenographer	1.94	2.04	1.95	2.11	2.00	1.74	1.84	1.64	1.53
7. Storekeeper	1.76	1.85	1.65	1.64	1.70	1.72	1.80	1.66	1.57
II. Manual									
1. Carpenter	1.20	1.20	1.05	1.16	1.16	1.60	1.22	1.10	1.16
2. Field Electrician	1.43	1.73	1.53	1.61	1.52	1.55	1.40	1.34	1.47
3. Janitor	1.10	1.21	1.30	1.30	1.32	1.11	-	1.11	1.10
4. Laborer	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5. Mechanic	1.45	1.74	1.33	1.51	1.47	1.30	1.49	1.27	1.24
6. Plumber	1.63	1.61	1.33	1.57	1.40	1.36	-	1.30	1.27
7. Driver	1.32	1.60	1.40	1.55	1.38	1.34	1.32	1.34	1.10
III. Professional									
1. Architect	3.76	3.90	3.25	3.66	2.96	2.91	2.42	2.82	2.32
2. Chemist	2.45	2.37	2.20	2.23	2.02	2.15	2.20	1.86	1.83
3. Clinic Physician	3.41	3.15	3.71	3.91	3.12	3.15	3.95	3.06	2.55
4. Dentist	2.33	2.53	2.93	3.25	2.86	2.40	2.55	2.57	2.24
5. Legal Officer	3.12	3.34	3.40	4.04	4.22	4.26	5.05	4.77	3.06
6. Mechanical Engineer	4.24	3.04	2.87	2.75	2.06	2.70	2.70	2.32	2.29
7. Medical Technologist	1.99	1.74	1.50	1.57	1.52	1.31	1.40	1.27	1.27
8. Nurse	1.63	1.60	1.40	1.46	1.52	1.40	1.50	139.00	1.27
9. Pharmacist	1.63	1.66	1.50	1.81	1.76	1.47	1.60	1.43	1.33
10. Statistician	3.30	2.87	2.69	2.72	2.10	2.32	1.32	2.07	1.70
11. Corporate Accountant	3.49	3.59	3.22	3.72	3.54	3.70	3.20	3.09	2.72

Source: Sanchez (1986).

Table 41
RATIO OF SOME OCCUPATIONS' REAL WAGES TO THOSE OF LABORERS IN
METRO MANILA, 1960-1981

Occupation	Survey Year								
	1960	1963	1966	1969	1971	1973	1976	1979	1981
I. Clerical and Administrative									
1. Accounting Machine Operator	1.75	2.00	2.03	2.64	2.66	1.92	1.93	1.86	1.63
2. Cashier	2.54	2.21	2.00	2.66	2.86	2.53	2.91	2.76	2.40
3. Clerk	1.30	1.50	1.53	1.69	1.73	1.71	1.51	1.54	1.25
4. Personnel Officer	4.68	4.05	3.39	4.17	4.46	5.29	4.82	3.86	3.23
5. Record Officer	3.20	2.36	2.08	3.20	3.41	3.41	2.31	3.35	2.08
6. Stenographer	1.82	1.79	1.82	2.00	2.09	1.92	1.91	1.67	1.45
7. Storekeeper	1.69	1.62	1.82	1.64	1.60	1.67	1.70	1.63	1.40
II. Manual									
1. Carpenter	1.21	1.09	0.98	1.14	1.10	0.98	1.22	1.10	1.03
2. Field Electrician	1.47	1.66	1.56	1.61	1.58	1.49	1.47	1.24	1.50
3. Janitor	1.05	1.09	1.26	1.25	1.34	1.22	-	1.12	1.03
4. Laborer	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5. Mechanic	1.42	1.61	1.32	1.47	1.21	1.57	1.69	1.35	1.22
6. Plumber	1.68	1.55	1.50	1.73	1.36	1.39	-	1.24	1.12
III. Professional									
1. Architect	3.51	2.66	2.70	2.92	2.66	2.57	2.51	2.59	1.97
2. Chemist	2.25	2.21	2.08	2.15	2.10	2.43	2.24	2.02	1.82
3. Clinic Physician	3.35	2.75	3.42	3.57	3.56	3.15	4.04	3.21	2.55
4. Dentist	2.40	2.09	2.84	3.05	2.97	2.10	2.29	2.39	2.00
5. Legal Officer	3.19	3.05	3.19	3.68	4.21	4.45	5.07	4.75	3.57
6. Mechanical Engineer	4.02	2.79	2.69	2.86	2.75	3.00	2.84	2.14	2.13
7. Medical Technologist	2.05	1.44	1.27	1.36	1.39	1.29	1.33	1.22	1.13
8. Nurse	1.55	1.36	1.31	2.15	1.49	1.41	1.47	1.31	1.13
9. Pharmacist	1.53	1.45	1.47	1.70	1.05	1.43	1.50	1.41	1.17
10. Statistician	3.15	2.48	2.50	2.61	2.42	2.45	2.33	2.10	1.73
11. Corporate Accountant	3.33	3.21	3.06	3.57	3.74	4.03	3.20	3.06	2.53

Source: Sanchez (1986).

have increased. In the case of professionals, there was an increase in 1986 and a decrease in 1987. These latest figures, however, have to be considered with caution since they represent only a limited number of occupations/professions. In particular, the professional group included mainly nurses, doctors and teachers.

Using the OCPC data, occupational wage differentials were computed for the Philippines and Metro Manila (Tables 42 and 43). 15/ The figures show some fluctuations for the earlier years, but in general, the emerging trend is one of narrowing differentials particularly from 1976 to 1981.

In terms of real average earnings, all the three broad sectors of the economy experienced declines from 1976-78 and from 1983-86. There was some increase during 1980-1982, with peak levels reached in 1982. Workers in agriculture, however, received the lowest earnings with workers in both service and industry sectors receiving twice as much (Table 44). 16/ The rates of decline in real earnings were highest in the period 1983-1986, with Agriculture and Industry experiencing declines of 22.7 percent and 23.0 percent in 1983 and 1984, respectively (Table 45).

Looking at earnings by more disaggregated industry groups, we observe that real quarterly earnings in all the industries declined at least during the first four years of the 70s, (Table 46). After the mid-70s, a general tendency to increase was observed and this continued until about the early 80s except for agriculture. After 1982, real wages almost uniformly declined. In terms of nominal earnings, all the sectors showed an increasing trend, especially after 1978. Very noticeable, though, was the tendency of the agricultural sector to lag behind in terms of earnings (Table 47). In fact if we look at the ratios of earnings of each industry to agriculture, we easily note that in the early 70s, there was a tendency for the earnings differentials to decline. However, this movement reversed during the 80s, and we observe widening differentials between agriculture and the other industries, except for manufacturing.

In terms of occupational groups, nominal earnings have generally been on the uptrend from 1971-1986 (Table 48). Real earnings, however, declined for all occupations especially after

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15/ The differentials are measured by the ratios of other occupations' wages to those of laborers.

16/ There was an unusual decline in agriculture's average earnings which consequently made earnings in the other sectors more than nine times as much. However, we feel that this was more of a data measurement problem rather than a real decline.

Table 42
PERCENTAGE CHANGE IN AVERAGE QUARTERLY EARNINGS
OF EMPLOYED PERSONS BY TYPE OF INDUSTRY, PHILIPPINES
(At Constant 1978 Prices), 1976-1986

Year	All Industries	Agriculture	Industry	Services
76-77	(9.6)	(9.1)	(14.1)	(10.8)
78	(47.5)	(87.5)	(10.9)	(17.9)
78-80	50.7	302.5	15.9	19.2
81	0.9	(3.2)	3.5	3.2
81-82	11.7	15.2	16.7	8.3
83	(14.3)	(22.7)	(21.1)	(6.5)
84	(8.1)	(14.2)	(23.0)	(15.0)
84-85	(9.4)	(7.3)	(0.4)	(14.6)
85-86	(8.7)	(10.6)	(12.2)	(5.0)

Table 43
AVERAGE QUARTERLY EARNINGS OF EMPLOYED PERSONS BY TYPE OF INDUSTRY, PHILIPPINES: 1976-1986 (Third Quarter)
At Constant 1978 Prices

Type of Industry and Major Occupation Group	1976	Ratio	1977	Ratio	1976	Ratio	1980	Ratio	1981	Ratio	1982	Ratio	1983	Ratio	1984	Ratio	1985	Ratio	1986	Ratio
All Industries	1201.18		1085.65		570		858.89		856.96		968.82		830.45		763.27		691.15		631.30	
Agriculture	1009.41	1.00	917.56	1.00	115	1.00	462.92	1.00	448.12	1.00	516.17	1.00	398.95	1.00	455.86	1.00	422.29	1.00	377.43	1.00
Industry	1412.94	1.40	1214.13	1.32	1082	9.41	1254.14	2.71	1297.90	2.90	1514.43	2.93	1194.75	2.99	919.69	2.02	918.05	2.17	804.67	2.13
Service	1452.94	1.44	1296.57	1.41	1084	9.35	1268.54	2.74	1309.38	2.92	1418.59	2.75	1326.51	3.33	1127.09	2.47	962.00	2.28	913.59	2.42
Not Reported	1022.35	1.01	1057.82	1.15	499	4.34	881.93	1.91	1374.28	3.07	1143.76	2.22	-	-	243.37	0.53	-	-	107.75	0.44

Source of Data: Integrated Survey of Households, NSO.

Table 44
AVERAGE REAL QUARTERLY EARNINGS OF WAGE AND SALARY AND OWN-ACCOUNT
WORKERS BY MAJOR INDUSTRY GROUP, 1971-1986 (1978-100)

	1971	1972	1973	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
TOTAL	1476	1236	1140	960	1008	1252	1192	694	1010	1026	1144	974	863	781	719
Agriculture, forestry, hunting and fishery	876	696	684	600	576	1169	1115	944	595	573	653	480	546	518	458
Mining and Quarrying	1776	1704	1560	1392	1404	1255	1787	1283	1342	1569	1510	1402	976	1065	954
Manufacturing	1512	1344	1248	996	1056	1366	1150	1056	1309	1856	1832	1223	921	932	802
Electricity, Gas & Water	2138	2064	2004	1644	1776	1634	1741	2023	1783	2036	2028	1884	1537	1463	1660
Construction	1476	1272	1140	960	972	1129	1101	1238	1269	1111	1413	1222	962	871	789
Commerce	1656	1500	1380	1248	1332	1047	1153	1928	1874	2186	2735	1748	1616	1214	1265
Transport, Storage and Communication	1752	1416	1248	1080	1116	1531	1253	1216	1365	1389	1585	1333	1183	1082	1099
Community, Social and Personal Services	1308	1116	1020	840	852	1355	1870	1330	1234	1206	1339	1316	1010	976	886
Industry not reported	8052	5100	3624	1272	22266	1264	1111	541	860	1387	1144	-	122	-	168

Note: Commerce includes financing, real estate and business services.
Sources: Integrated Survey of Households, NSO, various years (third quarter).

Table 45
AVERAGE NOMINAL QUARTERLY EARNINGS OF WAGE AND SALARY OWN-ACCOUNT WORKERS
BY MAJOR INDUSTRY GROUP, 1971-1986

	1971	1972	1973	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
TOTAL	568	578	612	696	780	1064	1113	694	1403	1611	1981	1855	2471	2754	2554
Agriculture, forestry, hunting and fishery	348	324	372	432	444	994	1041	944	827	900	1131	914	1565	1825	1626
Mining and Quarrying	708	792	840	1008	1092	1067	1669	1283	1864	2465	2615	2870	2794	3755	3389
Manufacturing	600	624	672	720	816	1161	1074	1056	1818	2915	2826	2329	2637	3287	2850
Electricity, Gas & Water	852	960	1080	1188	1380	1389	1826	2023	2477	3198	3512	3588	4403	5159	5898
Construction	588	588	612	696	756	960	1028	1238	1762	1746	2448	2328	2755	3071	2604
Commerce	660	696	744	912	1032	690	1077	1928	2604	3434	3494	3328	4628	4282	4494
Transport, Storage and Communication	696	660	672	780	864	1306	1170	1216	1896	2182	2748	2540	3388	3814	3834
Community, Social and Personal services	528	516	552	612	660	1152	1747	1330	1714	1895	2319	2506	2892	3440	3149
Industry not reported	3204	2364	1958	924	17256	1074	1084	541	1194	2150	1981	-	349	-	596

Note: Commerce includes financing, real estate and business services.
Sources: Integrated Survey of Households, NSO, various years (third quarter).

Table 46
AVERAGE NOMINAL QUARTERLY EARNINGS OF WAGE AND SALARY AND OWN-ACCOUNT WORKERS
BY MAJOR OCCUPATION GROUP
(In Pesos)

MAJOR OCCUPATION GROUP	1971	1972	1973	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
ALL OCCUPATIONS	588	576	612	696	780	1064	1113	694	1403	1611	1981	1855	2471	2754	2554
Professionals & technical workers	1056	1092	1140	1248	1368	1701	1797	2153	2760	2964	3654	3514	4407	5325	4947
Administrative, executive & managerial workers	1668	1944	2412	2892	3144	3453	5803	3123	6792	9161	9951	12009	11391	12941	10711
Clerical workers	876	864	888	1032	1140	1316	1376	1656	2108	2473	2734	2614	3198	4410	3977
Sales workers	540	540	576	660	696	789	1137	1394	1755	3261	2621	2767	3639	3186	3126
Services workers	336	336	336	384	420	727	785	795	1158	1362	1490	1551	2217	2295	2173
Agricultural, animal husbandry & forestry workers, fishermen & hunters	324	300	336	396	420	1013	1034	1032	815	891	1120	883	1538	1802	1599
Production & related workers, transport equipment operators & laborers	544	538	536	584	646	962	920	1008	1496	1690	2228	2109	2437	2737	2739
Occupation not adequately defined	5616	3046	2508	684	22404	1050	1149	1499	2617	1991	3363	3188		5924	898

Note: The weekly earnings data were converted into quarterly figures by multiplying the weekly data by 12 (the standard number of weeks in a quarter).

Source: ISH, NCSO

Table 47
AVERAGE REAL QUARTERLY EARNINGS OF WAGE AND SALARY AND OWN-ACCOUNT WORKERS
BY MAJOR OCCUPATION GROUP
(1970=100)

MAJOR OCCUPATION GROUP	1971	1972	1973	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
ALL OCCUPATIONS	1476	1236	1140	960	780	1252	1192	694	1010	1026	1144	974	863	781	719
Professional & technical workers	2652	2352	2076	1716	1368	2001	1924	2463	1987	1087	2110	1845	1539	1510	1392
Administrative, executive & managerial workers	4188	4188	4476	3984	3144	4062	6213	3123	4098	5031	5745	6304	3977	3670	3015
Clerical workers	2196	1860	1644	1428	1140	1548	1473	1656	1518	1574	1570	1372	1117	1251	1119
Sales workers	1356	1164	1068	912	696	985	1217	1394	1236	2076	1512	1452	1271	904	879
Services workers	840	720	624	528	420	855	841	795	832	867	860	814	774	651	612
Agricultural, animal husbandry & forestry workers, fishermen & hunters	816	648	624	552	300	1192	1107	1032	587	567	647	464	537	511	450
Production & related workers, transport equipment operators & laborers	1368	1156	996	808	648	1132	985	1008	1077	1076	1286	1107	851	776	771
Occupation not adequately defined	14112	6564	4656	948	22404	1235	1230	1499	1894	1267	1953	1674		1680	252

Source: ISH, NCSO

Table 40
AVERAGE NOMINAL QUARTERLY EARNINGS OF EMPLOYED PERSONS BY REGION

Region	1976	1977	1978	1980	1981	1982	1983	1984	1985	19
All Regions	1,021	1,014	705	1,193	1,362	1,670	1,582	2,186	2,437	2,243
NCR	1,551	1,616	1,912	2,624	3,083	3,630	3,775	4,036	4,460	4,208
1	724	913	454	834	982	1,276	1,050	1,564	1,962	1,712
2	862	989	288	715	1,002	1,517	856	1,909	1,879	2,008
3	953	1,191	787	1,268	1,439	2,010	1,828	2,206	2,849	2,502
4	1,286	922	614	1,128	1,382	1,659	1,602	2,144	2,526	2,339
5	962	839	423	825	833	1,078	913	1,306	1,433	1,495
6	919	796	431	834	945	1,241	963	1,752	1,963	1,802
7	474	662	526	795	926	1,160	1,204	1,273	1,477	1,595
8	533	672	399	694	875	981	1,118	1,476	1,354	1,381
9	1,584	1,038	462	1,239	1,404	1,582	1,629	2,086	2,361	2,032
10	876	827	540	1,069	987	1,340	1,136	1,866	2,197	2,109
11	852	1,125	594	1,424	1,503	1,651	1,970	2,379	2,267	2,663
12	1,152	1,314	686	1,296	1,460	1,792	1,444	2,471	4,558	2,308

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

Table 49
AVERAGE REAL QUARTERLY EARNINGS OF EMPLOYED PERSONS BY REGION

Region	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
All Regions	1,201	1,006	705	859	867	969	830	763	691	631
NCR	1,709	1,728	1,912	1,854	1,943	2,068	1,933	1,659	1,267	1,157
1	868	990	454	611	622	722	542	532	537	490
2	993	1,050	288	514	627	674	456	733	557	590
3	1,154	1,289	787	935	951	1,209	982	744	764	663
4	1,517	984	614	843	905	974	853	784	760	691
5	1,165	922	423	573	515	612	481	457	409	429
6	1,048	829	431	584	597	715	510	592	523	483
7	531	609	526	564	582	637	589	424	404	451
8	626	714	399	496	554	578	617	530	481	416
9	1,066	1,150	462	949	949	974	904	745	698	620
10	1,005	861	540	732	589	721	560	626	609	602
11	1,035	1,196	594	1,019	947	963	1,041	855	651	760
12	1,412	1,470	686	942	935	1,064	776	864	1,291	653

Source: Department of Labor, Yearbook of Labor Statistics, various issues.
NCSO, Integrated Survey of Households (Unpublished).

1982. There were some fluctuations in earnings for the different occupations during the period 1976-1981. Nevertheless, the figures reveal clearly the unfavorable movements of earnings for certain groups of workers. While the administrative, executive and managerial workers, as well as the professional and technical workers have maintained relatively high levels of earnings during the 80s, the services production and agricultural workers have experienced tremendous declines and were receiving very low earnings towards the end of 1986. The three groups were receiving on the average ₱611, ₱771 and ₱450 per quarter, respectively.

Another significant observation is that the decline in earnings among agricultural workers has been very steep especially in 1980. In fact for the earlier years, this group of workers was receiving higher earnings than the service and production workers.

Based on these figures, the general trend has been that of a narrowing differential across occupations in the 1970s and a slightly increasing trend in the 80s particularly in 1985-1986.

D. Productivity and Wages

The movements of productivity and real wages and earnings in the course of the development of the Philippine economy especially during the 70s until the early 80s raise some puzzling questions. This period was marked by a generally rising labor productivity (output per worker) and declining real wage rates and earnings. This observation is intriguing considering that when productivity per worker rises, real wages are likely to rise, too. Oshima (1986) observed that this behavior is exceptional, although in principle may not be impossible since the two indicators refer to somewhat different magnitudes. However, he cites the cases of growth studies for countries like Britain, France and Japan where post-war economic growth was accompanied by productivity increases. Further, the neoclassical model of growth explicitly suggests the rise in wages relative to capital return and this accelerates the substitution of capital for labor. In the Lewis model, real wages do not fall but remain constant as productivity per worker rises, and the economy expands. This occurs despite the presence of unemployment. Profits rise, but total compensation also rise since employment increases. Even among Asian countries, the Philippine case is unusual according to Oshima (1986). In Japan, Taiwan and Korea, growth was accompanied by rising real wages despite unemployment. Malaysia and Sri Lanka as well experienced constant real wages in the 60s but these began to rise in the 70s.

Oshima (1986) offers two possible explanations to such a behavior. One is the possibility that even if real daily wages are falling, total employment measured by aggregate days worked per worker increases so that this increase can more than offset the decline in wages. However, this implies a substantial increase in days worked which was unlikely (Oshima, p. 3). The other explanation involves possible shifts in the distributive shares of the different types of incomes, i.e., from compensation to property, proprietors' and public/government incomes. This implies that compensation's share to total income declined. To be plausible, there must have been large structural changes occurring in the economy to allow for the shift. The analysis in the previous sections do not seem to support this as the structural changes which occurred during the period were not that large. Likewise, a look at the share of total wages to GNP shows that compensation's share has in fact increased during the 70s (Table 50) until 1982 afterwhich it started to decline on account of the crisis.

The analysis of the statistics in the previous sections offer some initial points to consider in explaining the divergence. First, labor supply expanded rapidly and underemployment was widespread. Both exerted a downward pressure on wages. These conditions were matched by a relatively low demand, a consequence of the overall macroeconomic policy environment during the period. Lastly, the institutional factors, specifically the minimum wage law did not really help in keeping wages at pace with productivity increases.

III. POLICY ENVIRONMENT

This part of the study shall review past and present policies implemented by the government which affected and will likely affect employment, productivity and wages in the Philippines.

Several studies have already been written on the effects of policies on employment. 17/ Tidalgo (1972) and Tidalgo and Esguerra (1984) specifically looked at employment policies in 1956-1971 and 1970-1980, respectively. This part of the study will review policies covering three periods, namely, 1950-1971, 1972-1980 and 1981-1988. 18/ The last period is significant since it is a period of important structural adjustment policies.

17/ There are other policy studies of equal importance but which do not specifically focus on employment effects (e.g., ILO 1974; Power and Sicat 1971; Bautista, Power and Associates 1979; Pernia, Paderanga and Hermoso and Associates 1983; and David 1983). They have nevertheless been useful in the analysis.

18/ A similar analysis can be found in Reyes and Milan (1988).

Table 50
GNP AND ANNUAL COMPENSATION, 1974-1985
(1972=100)

Year	GNP (1972=100)	Annual Compensation (₱ M)	% of GNP
1974	64739	23020	35.6
1975	68530	25220	36.8
1976	72718	27426	37.7
1977	77789	29300	37.7
1978	83070	31410	37.8
1980	92629	35399	38.2
1981	96041	36915	38.4
1982	97539	39644	40.6
1983	98619	39166	39.7
1984	91644	33654	36.7
1985	87766	33201	37.8

Source: Oshima (1986). Appendix Table 6.

Moreso, with the change of government in 1986 after years of authoritarian rule, questions can be raised as to whether the critical employment issues brought up in the past are properly addressed now.

The methodology will follow Tidalgo and Esguerra (1984). The policies will be classified according to fiscal and monetary policies, labor legislation and institutional reforms. Impact of policies which indirectly affect employment will be identified through its effect on the level of output, technology and relative factor prices.

A. Policies in 1950 to 1971

Concern for high economic growth rate dominated all concerns, the major thrust being industrialization during the post-war years. What actually emerged as dominant was a pattern of incentives and programs geared towards the provision of a climate conducive to investment activity. Generating employment was considered more as a dimension rather than the main focus. The economic development plans of the government did not explicitly include any employment target but rather expressed the employment generation forthcoming from an investment target as an important consequence of economic growth. Most policies were aimed towards providing incentives for import-substitution in manufacturing.

There were actually no explicit fiscal policies affecting employment aside from import controls and tariff protection until 1967. The post-war years started off with quantitative import restrictions initially intended to address severe balance of payments problems. Later, this inadvertently became the major device to protect firms producing import substitutes (Bautista et al. 1979). A comprehensive Tariff Law enacted in 1957 replaced the quantitative controls which later became the source of protection after the decontrol program of 1960-62. The Basic Industries Act of 1961 explicitly exempted from import tariff imports of equipment and machinery for firms classified as "basic industry." The first of the series of comprehensive fiscal incentive packages was enacted in 1967 under the Investment Incentives Act (IIA). This was followed by the Export Incentives Act (EIA) in 1970 which provided for a similar pattern of incentives to exports of "non-traditional" products.

Fiscal policies were mostly in the form of tax relief. Their expected impact on output was positive. However, this did not present itself as a viable strategy to generate employment. First, their effects were capital cheapening and thus biased towards the use of capital. Second, the capital bias favored large firms since they tend to be capital-intensive. Small- and medium-scale industries which are largely labor-intensive were, therefore, less favored. Tidalgo (1972) noted that small- and medium-scale industries employed a large percentage of the labor force. Thus it can be expected that the positive incremental effect of this fiscal package on employment was not substantial.

Government intervention in wage setting in the form of minimum wage and defining labor standards only served to further the capital bias.

The shift from quantitative controls of imports in the 50s to tariff protection of "non-essentials" in the 60s imposed high level of protection on these industries. Meanwhile, the low protection rates for capital and raw material inputs to these industries discouraged the development and adoption by the formal sector of indigenous forms of technology appropriate to the country's existing factor endowments. What resulted was the emergence of assembly-type manufacturing with low backward linkages (Tidalgo 1984). But the relatively poor performance of this sector in the late 50s and the 60s resulted in less than satisfactory effect on labor absorption (Reyes, forthcoming) which was also partly caused by the inability to expand output due to the limitations imposed by the domestic market. The products were also prices higher than that in the world market which resulted in the inability of the protected firms to export.

These fiscal incentives had similar effect on. agriculture. Fiscal incentives under the IIA favored labor-displacing mechanization in agriculture as observed by Barker and Cordova (1978) on rice farms in Central Luzon. Mechanization, however, was not widely adopted in major agricultural areas in the country, hence the negative impact on employment may not have been substantial.

The role of government infrastructure and public works programs was an important component of the overall development program because of their immediate employment effects, large backward linkages, and long-run sustainable impact. They also encourage the dispersal of economic activities from the urban to the rural areas. The Emergency Employment Administration (EEA) was created in July 1962 intended to provide temporary short-run stabilization through infrastructure, public works, and construction in the rural areas. Later in 1967 to 1970, the government financed massive rural infrastructure and electrification programs. All these programs were to have positive impacts on employment.

B. Policies in 1972 to 1980

Concerns regarding the growing unemployment and underemployment rates during the decade of the 70s signaled the need to address these problems directly. Employment targets were set in practically all the subsequent development plans of the government. Manpower training was emphasized to close the gap in the demand and supply of skilled manpower in the capital- and skill-intensive manufacturing industries.

Despite the emerging concern for the unfavorable effects of the inherent capital-bias of the existing pattern of fiscal and credit incentives and trade policies as espoused in the scholarly works of economists, the pattern of incentives under the IIA and the Tariff Structure of 1957 remained enforced. There were attempts at increasing the backward linkages of the protected sectors. For example, the Progressive Car Manufacturing Program (PCMP) of 1973 and the Progressive Motorcycle Manufacturing Program (PMMP) were supposed to work towards increasing the local content in production. While the inherent capital-intensity of these activities cannot be avoided, it was expected that the increase in backward linkages through subcontracting with parts producers would generate more employment. Their employment impact, however, still remains to be seen.

Labor laws on industrial relations in the 70s appeared more supportive of employers rather than the workers (Tidalgo 1984, p. 77). However, actual effects of mandated minimum wage and labor standards generally depend on the coverage of such laws, the actual enforcement, and the relative strength of workers' organizations in demanding compliance by employers. Thus its negative effect on employment was minimal.

There were few serious attempts to develop the small- and medium-scale industries (SMIs). SMIs have the characteristic of being labor-intensive and less skill-intensive since they use relatively simple techniques of production. They also tend to be regionally dispersed because their minimum efficient market size requirement is small. Policies directed at SMIs were mostly fiscal incentives, credit subsidies and technical assistance under the National Cottage Industries Development Authority (NACIDA). These policies benefitted the SMIs but they conflicted with the existing structure of tariff protection during this period. For instance, Hiemenz (1983) showed that relative to those enjoyed by large firms, their effective protection rates were very low.

While export demand can be thought of as having positive output effects, the imposition of export taxes and agricultural levies served to penalize exports and discourage production in general, thus can be regarded as having a negative effect on employment.

Building of rural infrastructure was more prominent during these years. Irrigation programs proliferated in several areas. Their favorable effects on productivity and employment are particularly significant in the reduction of rural under- and unemployment especially during the dry season.

Major structural reforms emerged in the 1970s. The first serious attempt at land reform was initiated under Presidential Decree No. 27 on rice and corn lands in 1973. Consequent decrees, however, delayed its implementation pending studies to be made in pilot projects. This kind of reform is generally redistributive in character. Its effect on employment can be inferred from the relative labor intensity of land use in smaller farm sizes compared to large ones. Khan and Lee (1981) pointed out that the relative small farm sizes in East Asia even before the land reforms took place used relatively more labor per hectare of land. More labor intensity is positively associated with farm productivity at least during periods of unemployment. The Philippine case is not any different from these observations. Quisumbing and Adriano (1988) showed that farm population per cultivated hectare of land tends to monotonically decrease as farm size increases. Land reform, therefore, likely results in a substantial increase in employment in the rural areas. This may be so because large landholdings can be prone to the use of capital intensive technology due to economies of scale. Big landlords also have access to formal credit markets, hence may reap the benefits from credit subsidy schemes provided by the government to be used in the financing of acquisition of these technologies.

It was also during this period when there was unprecedented growth of the government corporate sector. It started as a countercyclical measure, but later on was advertently used to regulate private enterprises (Manasan 1988). The share of the public sector enterprises' employment to total employment in the economy is small yet their presence could have stifled entry of new private enterprises as well as expansion of existing ones.

C. Policies in 1981 to 1988

Major structural reforms were initiated during this period. Trade and financial liberalization and another round of foreign exchange decontrol started in 1981. The pattern of fiscal incentives were revised under Batas Pambansa (BP) No. 391 to remove the existing capital bias of the IIA.

The Tariff Reform Program (TRP), an integral part of the trade liberalization program is structured in the following manner. The first stage is the elimination of quantitative imports restrictions and a gradual reduction of tariff rates. Second, tariff rates will be adjusted to conform to a more uniform protection. The lowering of tariff rates will remove the implicit tax on exports, and simultaneously, the exchange rate adjustment of the peso would make exports more competitive in the world market. This manner of sequencing of the program would likely result in a reduction in output and labor displacement in the protected industries during the initial stages. What is crucial is the time lag involved from the lowering of costs of production and devaluation of currency to export expansion. The expected export expansion will generate more employment considering that the country has comparative advantage over labor-intensive goods. This is, however, subject to a favorable external environment and prospective bilateral trading arrangements. The increase in labor demand from export industries will far outweigh the displacement from the capital-intensive protected sector. Power and Medalla (1987) quoting a special paper by Mabida indicated a fall in employment by an amount from 0.3 to 1.6 percent less than the expected fall in income in the initial stages of the Tariff Reform Program. 19/

Interest rate ceilings and subsidies were common forms of monetary policy in the past. The former has been criticized for its inability to mobilize domestic savings to finance investments. 20/ The scarcity of foreign sources of funds during this period necessitated the move to liberalize the local financial market. Removal of these ceilings resulted in higher interest rates in the formal financial markets. Rising interest rates will raise the rental cost of capital and lower investment spending. Montes (1987) showed a strong negative influence of rising real interest rate on output from estimates made in a macroeconomic model. Given that high interest rates make loanable funds more expensive, some form of labor displacement can be expected from all establishments due to rising working capital costs and reduction in economic activity.

The reorientation of fiscal incentives under BP No. 391 in 1983 was a positive step towards restructuring the existing misallocation of scarce capital resources. However, these initial efforts were counteracted by the reinstatement of the previous incentive pattern in a series of presidential decrees (PDs) in 1984 mainly due to political pressures.

The new government which took over in 1986 has spelled out the following strategies in the Medium Term Development Plan for 1987-1992:

1. Limiting the government's role on the achievement of socioeconomic goals which will be implemented through a decentralized decisionmaking process;

2. reemphasizing the prime role of development to the private sector;

3. population control;

4. removal of biases against labor in the choice of technology;

19/ Power and Medalla, however, caution the readers on the use of these figures. Firstly, the estimates were made under partial equilibrium assumptions. Thus the likely effects will be potential and may not actually be realized.

20/ Please see ILO 1974, and Lamberte 1983.

5. government nonintervention in wage setting;

6. reduced reliance on foreign sources of savings to finance investments;

7. removing the bias against the agricultural sector stemming from the system of industrial protection;

8. agrarian reform;

9. focusing the development of world-competitive industries complementary to growth in agricultural output and rural incomes;

10. the provision of and increased access to social services in rural areas;

11. stress on the development of indigenous resources in research and development;

12. debt management allowing for an acceptable rate of growth and eventual settlement of all debts;

13. implementation of a flexible exchange rate policy;

14. setting interest rate targets to mitigate capital outflows while ensuring attractiveness of real productive investments and elimination of interest rate subsidies on Central Bank credit facilities; and

15. fiscal expenditures to give top priority to programs that generate the highest employment impact particularly in rural areas as well as the provision of basic services while tax policies shall focus on equitable and efficient mobilization of domestic resources.

It can be observed that current development strategies are mostly directed to the rural areas. This is a good indication considering that if resources would be channeled to rural areas, labor absorption will be substantial considering these areas' dominant use of labor-intensive techniques. Another observation is that as in the development plans of the 70s and early 80s, it reiterates the government's concern over the inherent capital-bias of the existing patterns of fiscal and monetary policies. Also, the development plan calls for a more market-oriented economy with minimal government intervention in economic development.

One can therefore ask whether such concerns will be properly addressed in the actual policies implemented. The major policies are as follows.

First, the new Omnibus Investments Code of 1987 provided a return to the same pattern of fiscal incentives and thus will likely suffer the same employment effects as the previous Investments Incentives Act.

Second, privatization of the government corporate sector was initiated. Government financial institutions accumulated a tremendous amount of non-performing assets mostly of those corporations which it has subsidized in the past by offering liberal credit terms. Revitalization of these non-performing assets when sold to private investors can have a positive employment effect. On the other hand, reorganization of existing firms when privatized may result in employment reduction given the concern for efficiency. The likely labor displacement from privatization, however, may be minimal. Manasan (1988) showed that most of these firms are capital-intensive and hire an insignificant amount in the labor force. Also, privatization of these assets may relieve the government of providing resources to maintain these companies and reallocate the funds to more socio-economic projects.

Third, the agricultural sector continues to experience the same set of monetary and fiscal policies. Existing construction of rural infrastructure and public works programs continue. For example, the Community Employment and Development Program (CEDP) initiated in 1986, was aimed at easing the unemployment in the rural areas through public works, construction, and infrastructure projects similar to the Emergency Employment Authority in the late 60s. CEDP was intended to run for two years up to 1987. An assessment made by the National Economic Development Authority (NEDA) showed that the program fell short of the targetted one million new jobs it hoped to generate. Further, it was observed that the projects did not really absorb the unemployed members of the rural labor force since about 40 percent of those employed in these projects were in fact already initially employed.

Fourth, from among the policies directed to the rural areas, agrarian reform and the removal of monopolies in agriculture are the most important. The latter is even an integral part in the economic platform of the present government. Government monopolies in cash crops were initially set to stabilize the otherwise volatile international crop prices. Findings, however, showed that these were intended more to extract surplus from lucrative agricultural markets. This can be shown by the relatively small number of farmer beneficiaries of the intended programs sponsored by the government monopolies (See Agricultural, Policy and Strategy Team, 1986). The implementation of the Comprehensive Agrarian Reform Program (CARP) is crucial in promoting equity and social justice and increasing agricultural productivity and incomes. It is also expected to bring about higher levels of employment in the rural sector as smaller farms tend to be more labor intensive.

Besides, this program has a much wider coverage compared to the previous land reform program. Questions as regards its ability to truly bring about equitable redistribution are, however, raised by some sectors. These questions are specifically directed at the retention limit set under the program.

Fifth, most of the government's budget after 1982 were allocated to foreign debt-service. Earlier in the 70s, the biggest share of government expenditures was allocated to utilities and infrastructure, at least until 1983. This activity has high labor absorptive effects because of its less skill intensity and high backward linkages, and has long-run benefits. After 1983, the share of debt service significantly increased reaching about 45 percent in 1987. This is a large set-back in terms of the goverment's employment-generation concerns during the crisis.

The same set of policies affecting employment seem to have contributed to the decline in productivity and wages in the past. Hooley (1984) for example noted that the structure of tariff protection has contributed to declining TFP. It created incentives to use excessive amounts of intermediate inputs with correspondingly dysfunctional impacts on TFP. Likewise, productivity growth, especially in the manufacturing sector, was found to be intimately connected with the distress of the country's financial system in the past. Credit resources have been extended mostly to industries with very poor productivity records. Lal (1979) also suggested that declining wages in the Philippines was not a result of the failure of the labor market to adjust to changes in market forces, rather it was the result of the overall macroeconomic policy environment and the exchange rate policy which prevailed during the period. This effect worked through changing relative commodity prices which affect relative factor prices. His study covered the period from 1956 to 1978. Perhaps the slight increases in real wages during the early 80s were already the initial result of the structural reforms initiated during the period.

IV. SUMMARY, CONCLUSION AND PROSPECTS

The employment impact of industrialization thrusts initiated during the post-war period created a dominant pattern of fiscal and monetary policies which have conflicting objectives in terms of achieving both economic growth and full employment. While the policies in general increased investments and output, their inherent capital bias resulted in the low rate of labor absorption. Experience, however, showed that the performance of manufacturing in terms of increasing output and generating new employment was unsatisfactory due to several factors. First, the limitations in the domestic market for output of import-substituting firms did not allow them to harness the economies of scale of capital intensive technologies. Second, the outward looking strategy initiated in the late 60s to generate new markets for these products provided a new impetus but was limited in that there was no attempt at altering the existing pattern of fiscal incentives. The government has shown reluctance in redirecting these incentives. As such the implementation of the major reforms has not been given the right element of administrative commitment. Third, the incentives resulted in a misallocation of investable funds in that it has been directed at high cost industries rather than at low cost industries where the country has comparative advantage (Bautista et al. 1979). Thus, potential output and employment may have been substantially higher than what was actually experienced. Fourth, sweeping labor legislations were highly short-sighted and only served to raise labor costs and discourage employment. However, reliance on bargaining among labor and management can still prove unviable at present because of the low incidence of unionized labor and the lack of government institutions to provide the necessary information to help labor to bargain for their welfare. This being the case, there are efforts at the National Wages Council to come up with studies on the feasibility of other alternative measures to keep real wages from falling, at the same time minimize government interference in wage setting.

The major problem of adopting an outward-looking strategy as mentioned above is the lack of reciprocal response in the international setting. The prospect for increased exports in the country remains bleak in the face of increasing protectionism and stagnation among developed economies. However, current developments point to future favorable external factors. Similar to what the NICs experienced with Japan, rising real wages and strengthening of their currencies resulted in shifting comparative advantage out of traditional labor-intensive exports to more skilled and technology intensive activities. This opens up bright prospects for the ASEAN countries which will likely fill-up the vacancy left by the NICs in the export of traditional commodities.

There are, however, two obstacles to realizing these objectives (Ariff and Hill 1985). One is on how to sustain the shift towards export-promotion. Existing incentives still favor capital-intensity although institutions supporting the more labor intensive SMIs are being put in place. Agriculture is not likely to totally shift from traditional methods and generate surplus until full-employment is reached. The lack of resources for research and development of indigenous technologies which are labor-using remains a problem. Second is the current political and financial crisis which is closely linked with the first obstacle. The high proportion of the budget allocated to debt service creates financial bottlenecks to vital socioeconomic development programs and institutional reforms. In the meantime, the political instability tends to affect the credibility and continuity of existing programs which may hinder further progress in the private sector. The peace and order situation in the country has severely deteriorated and unless current efforts are successful to contain the problem, the expected growth in investments may not be realized.

Thus, in search for policies which can increase labor absorption, certain points may be made based on the analysis. First, what is called for is a system of taxation and protection which is nonfactor price distortive. The adoption of the appropriate technology which is more labor using will follow as a consequence. Secondly, economic growth and therefore employment generation can be accelerated with a firmer commitment on the part of the authorities in implementing the structural reforms. And lastly, the outward-looking strategy is worth pursuing giving emphasis to light manufacturing industries. 22/ This group has consistently shown resiliency during the economic crisis as evidenced by its ability to maintain relatively high levels of sales and small levels of labor displacement during the period 1980-1984. This policy direction would remain in accord with the overall development objective of creating productive employment as these industries are basically labor intensive and maintain a relatively high proportion of total employment (Table 51). Furthermore these industries have relatively high backward linkages (Table 53) and high total employment coefficients (Table 54). 23/ There is also bright prospect for these

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22/ These industries include the following: weaving apparel and footwear; logs, lumber and plywood; furniture; electronics; food processing; tobacco, cigars & cigarettes; and textiles.

23/ Total employment coefficients provide the direct and indirect employment effects of a given increase in output. This is computed using the inverse matrix of the I-O table following the formula:

$$E_t = \frac{\frac{1}{n}\sum_i l_i r_{ij}}{\frac{1}{n^2}\sum_i \sum_j l_i r_{ij}}$$

where r_{ij} = each element of $(I-A)^{-1}$ in I-O matrix

l_i = direct coefficient in number of workers per ₱1,000.00.

Table 51
ESTIMATED SALES BY INDUSTRY: (INDEX NUMBERS: 1980 = 100)
(At 1972 Constant Prices)

Sector	1980	1981	1982	1983	1984
Primary Export Oriented	100.0	97.00	91.99	100.04	74.00
Coconut	100.0	91.64	70.81	100.24	99.09
Banana	100.0	105.60	140.51	122.05	132.84
Mining and smelting	100.0	102.09	101.70	97.60	42.91
Primary Import Oriented	100.0	82.74	109.20	95.71	87.43
Livestock and poultry	100.0	88.76	132.60	115.36	100.79
Marine	100.0	70.07	60.12	54.29	59.20
Light Manufactures Import Oriented	100.0	92.04	97.19	105.40	90.60
Food processing	100.0	95.66	105.41	109.04	96.91
Tobacco, cigars, cigarettes	100.0	105.46	103.79	120.00	114.61
Textiles	100.0	74.14	68.90	80.17	59.45
Light Manufactures Export Oriented	100.0	135.30	124.21	159.70	148.70
Wearing Apparel	100.0	165.40	145.20	175.60	133.03
Footwear	100.0	136.55	115.61	119.45	97.00
Logs, lumber, plywood	100.0	121.96	96.34	115.42	89.14
Furniture	100.0	105.86	130.47	177.31	181.79
Electronics	100.0	110.13	131.35	195.53	241.51
Intermediate Goods	100.0	75.19	71.89	70.37	72.21
Paper	100.0	62.89	54.96	63.27	67.20
Leather	100.0	82.42	62.51	56.31	50.49
Rubber	100.0	95.66	106.50	120.23	102.00
Pharmaceuticals	100.0	94.70	97.16	101.42	88.91
Chemicals	100.0	66.81	65.62	72.11	70.42
Cement	100.0	112.70	90.75	102.73	61.10
Nonmetal minerals	100.0	75.90	71.44	77.53	74.75
Basic metals	100.0	45.07	10.81	75.95	67.80
Capital Goods	100.0	76.41	71.96	72.81	43.97
Fabricated metals	100.0	109.43	100.82	111.36	106.27
Transport equipment	100.0	57.50	53.34	51.40	17.51
Electric machinery	100.0	127.00	130.61	127.46	70.75
Total	100.0	92.60	92.02	102.21	87.40

Source: Ministry of Trade and Industry.
World Bank (1986).

Table 52
EMPLOYMENT LEVELS BY INDUSTRY: INDEX NUMBERS 1980-85

Sector	1980	1981	1982	1983	1984	1985
Primary Export Oriented	100.0	88.96	91.24	84.47	82.16	83.09
Coconut	100.0	96.13	100.79	107.84	106.05	102.87
Banana	100.0	99.00	112.81	92.99	96.43	95.70
Mining and smelting	100.0	80.77	74.65	75.02	68.59	71.30
Primary Import Oriented	100.0	91.76	91.35	84.88	84.88	85.78
Livestock and poultry	100.0	96.11	112.41	107.90	107.73	107.78
Marine	100.0	89.49	80.35	72.92	73.00	74.33
Light Manufactures Import Oriented	100.0	95.78	86.93	85.79	82.83	79.68
Food processing	100.0	94.76	98.50	94.63	93.10	87.07
Tobacco, cigars, cigarettes	100.0	78.81	78.58	74.23	65.08	68.26
Textiles	100.0	100.0	67.99	72.06	67.50	68.46
Light Manufactures Export Oriented	100.0	105.84	92.34	105.92	113.79	98.76
Wearing Apparel	100.0	93.63	84.11	99.60	104.51	92.96
Footwear	100.0	112.23	121.01	120.70	141.25	122.67
Logs, lumber, plywood	100.0	141.89	110.32	111.44	108.08	98.11
Furniture	100.0	96.85	76.48	109.49	144.97	122.44
Electronics	100.0	96.78	104.73	120.62	141.97	98.64
Intermediate Goods	100.0	92.83	89.90	97.87	86.86	83.58
Paper	100.0	75.77	79.66	87.76	87.73	75.44
Leather	100.0	93.13	90.89	79.73	69.86	65.06
Rubber	100.0	93.60	91.39	89.60	85.64	79.27
Pharmaceuticals	100.0	147.08	92.96	87.38	86.75	86.20
Chemicals	100.0	92.85	85.11	85.63	84.59	78.91
Cement	100.0	99.23	92.07	91.15	81.15	81.38
Nonmetal minerals	100.0	82.89	73.67	89.20	71.18	59.97
Basic metals	100.0	92.12	142.45	167.08	132.41	159.17
Capital Goods	100.0	91.46	93.35	83.28	66.25	61.69
Fabricated metals	100.0	89.73	101.61	102.98	85.50	75.04
Transport equipment	100.0	75.71	69.91	55.26	42.78	40.32
Electric machinery	100.0	108.48	106.23	87.42	67.72	66.77
Total	100.0	97.14	90.17	92.64	90.72	84.48

Source: Ministry of Trade and Industry.
World Bank (1986).

Table 53
PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY INDUSTRY, 1980-85

	1980	1981	1982	1983	1984	1985
Primary Export Oriented	8.78	8.04	8.89	8.01	7.95	8.64
Coconut	0.70	0.69	0.78	0.82	0.82	0.85
Banana	3.34	3.40	4.18	3.35	3.55	3.78
Mining and smelting	4.74	3.94	3.93	3.84	3.59	4.00
Primary Import Oriented	5.71	5.40	5.79	5.23	5.34	5.80
Livestock and poultry	1.95	1.93	2.44	2.28	2.32	2.49
Marine	3.76	3.46	3.35	2.96	3.02	3.31
Light Manuf. Import Oriented	34.20	33.73	32.97	31.67	31.25	32.26
Food processing	20.64	20.14	22.65	21.09	21.19	21.28
Tobacco, cigars, cigarettes	1.70	1.38	1.48	1.36	1.22	1.37
Textiles	11.86	12.21	8.94	9.22	8.82	9.61
Light Manuf. Export Oriented	29.55	32.19	30.26	33.78	37.06	34.54
Wearing apparel	16.10	15.51	15.01	17.31	18.37	17.71
Footwear	1.00	1.16	1.35	1.31	1.56	1.46
Logs, lumber, plywood	6.71	9.80	8.21	8.07	8.05	7.79
Furniture	3.12	3.11	2.64	3.68	4.98	4.52
Electronics	2.62	2.61	3.04	3.41	4.10	3.06
Intermediate Goods	11.09	10.59	11.05	11.71	10.61	10.97
Paper	1.76	1.37	1.56	1.67	1.70	1.57
Leather	0.41	0.39	0.41	0.35	0.32	0.32
Rubber	0.32	0.31	0.32	0.31	0.30	0.30
Pharmaceuticals	1.06	1.68	1.09	1.00	1.01	1.08
Chemicals	2.29	2.10	2.16	2.11	2.13	2.13
Cement	0.71	0.72	0.72	0.69	0.63	0.68
Nonmetal minerals	3.14	2.68	2.56	3.02	2.46	2.23
Basic metals	1.41	1.34	2.23	2.56	2.06	2.66
Capital Goods	10.67	10.05	11.05	9.59	7.79	7.79
Fabricated metals	3.95	3.65	4.45	4.39	3.68	3.51
Transport equipment	3.28	2.56	2.54	1.96	1.55	1.57
Electric machinery	3.44	3.84	4.06	3.25	2.57	2.72
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ministry of Trade and Industry.
World Bank (1986).

Table 54
FORWARD AND BACKWARD LINKAGES (66 x 66): 1983

SECTOR	DESCRIPTION	Ui	Rank	Uj	Rank
1	Palay	0.945676	22	0.718400	55
2	Corn	1.076100	16	0.653471	61
3	Coconut	1.254806	11	0.649679	62
4	Sugarcane	0.896330	25	0.691376	59
5	Banana	0.547793	56	0.718554	54
6	Other crops incl. agric. services	1.326825	10	0.584244	64
7	Livestock and its products	1.071487	17	1.071706	30
8	Poultry and its products	0.950716	21	0.998756	41
9	Fishery	0.817519	30	0.707889	56
10	Forestry and logging	1.246573	12	0.655367	60
11	Metallic mining	0.708477	41	0.810058	49
12	Nonmetallic mining and quarrying	2.002759	3	0.763569	53
13	Rice and corn milling	0.740498	38	1.050163	34
14	Sugar milling and refining	0.596702	51	1.061212	33
15	Milk and other dairy products	0.747570	37	1.209446	3
16	Coconut oil, cake and meal	1.433151	8	1.097476	26
17	Refined cooking oil and margarine	0.650021	45	1.273526	6
18	Meat and meat products	0.891387	26	1.278611	4
19	Flour and other grain mill products	0.797784	31	1.149725	20
20	Animal feeds	1.077579	15	1.147330	21
21	Other processed food	0.890005	27	1.151159	19
22	Beverage industries	0.614368	49	1.007698	39
23	Tobacco manufactures	0.731686	40	1.072868	29
24	Textiles and textile goods	1.013074	19	1.106589	25
25	Wearing apparel and footwear	0.524079	60	1.065927	31
26	Lumber, plywood and veneer	0.916540	23	1.063959	32
27	Other wood, cork and cane products	0.512524	62	1.022286	36
28	Furniture and fixtures	0.501466	64	1.176243	13
29	Paper and paper products	1.226664	13	1.233546	7
30	Publishing and printing	0.627704	47	1.161034	17
31	Leather and leather products	0.578970	53	1.270376	5
32	Rubber and plastic products	1.499981	7	1.213170	8
33	Drugs and medicines	0.677990	43	1.192955	12
34	Basic industrial chemicals	1.845216	5	1.160033	18
35	Fertilizer	0.797310	32	1.208593	9
36	Other chemical products	0.900770	24	1.146219	22
37	Petroleum products	4.350497	1	1.017308	37
38	Cement manufacture	0.583211	52	1.127953	24
39	Other nonmetallic mineral products	0.697534	42	0.995498	42
40	Basic metal industries	2.150393	4	1.335528	1
41	Metal products	0.964186	20	1.306495	2
42	Machinery except electrical	0.650135	44	1.171690	14
43	Electrical machinery	1.035314	18	1.200101	10
44	Transport equipment	0.841991	29	1.198036	11
45	Miscellaneous manufactures incl. scrap	0.791126	33	1.007334	27

Table 54 (cont'd)

SECTOR	DESCRIPTION	Ui	Rank	Uj	Rank
46	Construction	0.624846	48	1.002632	40
47	Electricity	1.676964	6	1.165019	15
48	Gas and steam	0.505739	63	1.163956	16
49	Water works	0.572019	54	1.007855	38
50	Busline operation	0.524753	59	1.079773	28
51	Other passenger land transport	0.545025	58	1.039057	35
52	Road freight transport	1.217227	14	0.951098	45
53	Water transport	0.767941	34	0.956239	44
54	Air transport	0.545861	57	0.977571	43
55	Supporting & allied services to transport	0.760035	35	0.856100	47
56	Communications	0.750466	36	0.802629	50
57	Storage and warehousing	0.512756	61	0.838888	48
58	Wholesale and retail trade	4.090464	2	0.697523	58
59	Banks, nonbanks and insurance	0.861391	28	0.703780	57
60	Real estate and ownership of a dwelling	0.641720	46	0.601853	63
61	Government services	0.499376	65	0.499376	65
62	Private education services	0.590836	50	0.760396	52
63	Private health services	0.560388	55	0.861797	46
64	Hotels and restaurants	0.739861	39	1.144075	23
65	Other private services	1.423709	9	0.802230	51

Source: NEDA. The Interindustry Accounts of the Philippines 1983 Update.

Table 55
TOTAL AND DIRECT LABOR COEFFICIENTS

Sector Code	Description	Total	Rank	Direct L/O	Rank	Total/Direct
1	Agricultural production including agricultural services	0.257020543	1	0.17252364	1	1.489770001
2	Livestock and poultry	0.071563586	4	0.04538147	3	1.576933965
3	Fishery	0.058120670	6	0.04847790	2	1.198910560
4	Forestry and logging	0.054252792	7	0.03424082	6	1.584447947
5	Metallic mining	0.007880154	48	0.00488697	38	1.612482512
6	Nonmetallic mining and quarrying	0.051381871	8	0.01076931	25	4.771138417
7	Rice and corn milling	0.023297636	21	0.01592147	16	1.463283837
8	Sugar milling and refining	0.005995862	50	0.00472583	39	1.268743680
9	Milk and other dairy products	0.004287354	54	0.00219340	48	1.954665220
10	Coconut oil, cake and meal	0.009737981	45	0.00044726	58	21.772253520
11	Refined coconut oil and margarine	0.003813576	55	0.00152142	54	2.506584410
12	Meat and meat products	0.021504939	26	0.00637421	34	3.373742004
13	Flour and other grain mill products	0.058691638	5	0.04483058	4	1.309187332
14	Animal feeds	0.021640595	24	0.00239007	47	9.054365143
15	Other processed food	0.019851297	28	0.01214349	21	1.634726081
16	Beverage industries	0.004970941	52	0.00397763	41	1.249724272
17	Tobacco manufactures	0.003614246	56	0.00246614	46	1.465545069
18	Textiles and textile goods	0.030389289	15	0.01065655	26	2.851701760
19	Wearing apparel and footwear	0.031344090	13	0.03030617	7	1.034274104
20	Lumber, plywood and veneer	0.0212212133	27	0.01089244	24	1.948252269
21	Other wood, cork and cane products	0.0217171293	23	0.02142327	11	1.013716696
22	Furniture and fixtures	0.0080999117	47	0.00803716	33	1.007807090
23	Paper and paper products	0.0165064005	31	0.00343533	43	4.804926670
24	Publishing and printing	0.0140070338	35	0.01092848	23	1.281700489
25	Leather and leather products	0.0240318984	20	0.02031583	12	1.182915175
26	Rubber and plastic products	0.0298614437	16	0.00813808	32	3.669347832
27	Drugs and medicines	0.0059526432	51	0.00278805	44	2.135059704
28	Basic industrial chemicals	0.0221691345	22	0.00060550	57	36.613095414
29	Fertilizer	0.0130988444	40	0.00096564	56	13.564932673
30	Other chemical products	0.0121665025	41	0.00192670	50	6.314679641
31	Petroleum products	0.0747719738	3	0.00007667	59	975.285607849
32	Cement manufacture	0.0042898305	53	0.00255937	45	1.676127750
33	Other nonmetallic mineral products	0.0138162531	37	0.01046933	28	1.319680689
34	Basic metal industries	0.0305551609	14	0.00200452	49	15.243143160
35	Metal products	0.0190407739	30	0.01004825	29	1.894933404
36	Machinery except electrical	0.0215685025	25	0.01750500	14	1.232134149
37	Electrical machinery	0.0162798599	33	0.00616200	35	2.641632613
38	Transport equipment	0.0109371015	43	0.00381340	42	2.868070397
39	Miscellaneous manufactures including scrap	0.0242098202	19	0.01661081	15	1.462290232
40	Construction	0.0131577975	39	0.01053540	27	1.248913100

Table 55 (cont'd)

Sector Code	Description	Total	Rank	Direct L/O	Rank	Total/Direct
41	Electricity	0.0278870978	17	0.00174124	53	16.015693404
42	Gas and steam	0.0021095090	58	0.00183520	52	1.149470747
43	Water works	0.0134240661	38	0.01171532	22	1.145924410
44	Busline operation	0.0138210339	36	0.01324102	20	1.043864371
45	Other passenger land transport	0.0163507781	32	0.01520935	17	1.069422401
46	Road freight transport	0.0362002628	11	0.02001409	13	1.812663377
47	Water transport	0.0146585332	34	0.00843907	31	1.736983939
48	Air transport	0.0024678724	57	0.00144125	55	1.712313439
49	Supporting and allied services to transport	0.0192585153	29	0.01422458	18	1.353890204
50	Communications	0.011148553	42	0.00584675	36	1.906793508
51	Storage and warehousing	0.0094420004	46	0.00904875	30	1.041248647
52	Wholesale and retail trade	0.0862713233	2	0.00558612	37	15.443858759
53	Banks, nonbanks and insurance	0.009912374	44	0.00191349	51	5.180261661
54	Real estate and ownership of a dwelling	0.007728769	49	0.00451927	40	1.710182613
55	Government services	0	59	0.01349062	19	0.000000000
56	Private education services	0.0461687597	9	0.03960230	5	1.165810191
57	Private health services	0.0261154553	18	0.02497732	9	1.045566690
58	Hotels and restaurants	0.0321636739	12	0.02835002	8	1.134520492
59	Other private services	0.0443832628	10	0.02377129	10	1.867095492

industries to prosper in the light of current developments in the country's neighbors (i.e., Korea, Taiwan, Malaysia and Singapore) which are experiencing high and increasing real wages.

All these policies when successful in increasing productive employment opportunities and consequently induce faster labor absorption, will also bring about favorable influence on productivity and wages.

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