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PHILIPPINE EXPERIENCE IN LABOR ABSORPTION 1956 TO 1973

by

R.L. Tidalgo

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*At the May 1971 Singapore Conference, Tito A. Mijares and I presented a paper on "Labor Absorption in the Philippines, 1952-1969." Subsequently, Tito Mijares published an updated version of the paper with Candido Ordinario in the Statistical Reporter, Vol. XVI, No. 3 (July-September 1972). On the other hand, my paper uses data other than those in the Singapore paper and I have considerably extended my analysis in that earlier paper.

**Associate Professor, School of Economics, University of the Philippines.

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1 INTRODUCTION

Labor absorption in the Philippines during the period 1950's to the present is a case study in the effects of an industrialization attempt through import substitution, later coupled with export promotion, using capital-subsidizing instruments in a capital-scarce labor-abundant economy. The government-provided incentive system appears rational when viewed in terms of the relative factor proportion in the economy. It is apparent that the industrialization objective was conceptualized in terms of the growth of production. Labor employment was considered a dimension, but not the main focus, of the industrialization effort. The economic plans of the government did not include any employment target but rather expressed the employment generation forthcoming from an investment target as an additional benefit. Though the objective of industrialization seems to be interpreted as the increase in material welfare of a society, planners have been aware that during the period of attempting the material benefits are expected to trickle down to the low income class which constitutes the majority. The time dimension of the trickling-down process is not specified. In an economy characterized by unequal distribution of wealth and few government-provided welfare services, a major segment of the population has only the sale of their labor services as source of income. Employment, therefore, acquires an urgency which is unfortunately not given the appropriate priority consideration by the government.

This paper attempts to review the labor absorption in the Philippines since the 1950's. It explains the employment generation among the industries in terms of the relative factor price distortion created by the policy instruments adopted by the government in pursuing the industrialization objective, the state of technological borrowing and attempts by government and labor groups to protect labor's interest.

2 DATA

Employment data from labor force surveys have been generated by the National Census and Statistics Office (formerly, Bureau of Census and Statistics Survey of Households or BCSSH) starting in 1956. These surveys were conducted bi-annually in the months of May and October (with the exception of years 1958, 1960, 1962 and 1964) until 1968. A May survey was undertaken in 1969 but none in 1970 when the Census of Population and Housing was conducted. In 1971, it was resumed on a quarterly basis, namely, in the months of February, (the first quarter survey in 1971 was undertaken in March), May, August and November. The sample design used in these surveys was changed in 1965, then, again in 1971. Therefore, the trend in the series should be interpreted with caution.

The BCSSH employment data from 1956 to 1968 are averages of the May and October figures while those of 1971 to 1973 are quarterly averages. For the years when only one or no labor force survey was undertaken, the average of the preceding and the following year when surveys were undertaken is used instead.

The Annual Survey of Manufactures is another source of employment data used in this paper. This survey was undertaken by the Bureau of the Census and Statistics (BCS) starting 1956 through 1971 with the exception of years 1961, 1967 and 1972 when the BCS conducted economic censuses. Only establishments with at least five workers are included in these surveys.

In addition, employment statistics generated by the 1970 Census and Population and Housing are also used.

3 PHILIPPINE LABOR ABSORPTION, 1956 TO 1973

3.1 An Overview

The labor force increased from 9,029 thousand in 1956 to 14,140 thousand in 1973 or an average annual (geometric) growth rate of 2.6% (Table 1). Employment in 1956 was 8,009 thousand and 13,450 thousand in 1973, in effect, a 3.1% average annual rate of increase. These annual employment generation left a yearly average unemployment of 815 thousand totally unemployed members of the labor force during the period of an average annual unemployment of 7.4% of the labor force.

The extent of unemployment acquires a more serious dimension when the extent of underemployment and the size of the unpaid family workers among the employed are considered. Underemployment, defined as the expressed desire for additional work, is observed even among those working full-time ("invisibly"

TABLE 1

Labor Force, Employment and Unemployment,
1956 to 1973
(in thousands)

Year	Labor Force	Employed	Unemployed
1956	9,029	8,009	1,021
1957	8,875	8,174	701
1958[a]	9,317	8,555	762
1959	9,345	8,705	639
1960[a]	9,521	8,828	692
1961	9,995	9,245	750
1962[a]	10,479	9,641	837
1963	10,710	10,039	670
1964[a]	10,898	10,253	641
1965	11,127	10,322	805
1966	11,821	10,984	837
1967	12,525	11,526	999
1968	12,452	11,476	976
1969[b]	12,605	11,732	873
1970[b]	12,758	11,988	770
1971	12,911	12,245	666
1972	13,701	12,833	867
1973	14,140	13,450	690
Geometric Growth Rate 1956-1973	2.6%	3.1%	

[a] Interpolated values by averaging the figures of the previous and the following year with October and May surveys.

[b] Interpolated values by computing the average annual growth rate of 1968 to 1971.

SOURCE: Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

underemployed), i.e., whether based on a 40-hour week full-time work standard or a 50-hour week work standard, implying low income from work. If a measure of full-time equivalent unemployment among the "visibly" underemployed (those working less than full-time) is computed and added to the count of totally unemployed, the unemployment rate as a percentage of the labor force increases to an annual average of 17.3% using a 40-hour week full-time work standard and 25.9% for a 50-hour week standard or 1,912 thousand and 2,868 thousand unemployed for the two respective measures (Table 2). Another dimension of the failure of the economy to absorb labor in gainful employment is shown by the large size of unpaid family workers among the employed. This class of worker averaged 25.6% of annual employment during the period 1956 to 1973 or 2,649 thousand workers (Table 3). It is likely that some, if not a major proportion, of this group were in this category as a result of the lack or absence of alternative employment.

There has been an increase in the average hours of work among the employed during the survey week from 41.2 hours to 44.7 hours for the period 1959 to 1973 (Table 4). When employment growth is measured in terms of full-time equivalent employment such as a 40-hour week or 50-hour week standard, its average annual growth rate from 1957 to 1973 comes to 3.9% as compared to 3.2% using the person count (Table 5).[1] However, the faster increase

[1] The period considered here starts in 1957 instead of 1956 because there are no data on hours worked for the May 1956 employment. This computation also covers only the employed persons at work rather than the total employed as indicated in Table 1 since data on hours worked by the employed who were not at work during the survey week are not available. The former group has been observed to be 3% to 4% smaller than the latter.

TABLE 2

Total Unemployment, 1956 to 1973

(in thousands, except percent)

Year	Total labor force	UNEMPLOYED		TOTALLY UNEMPLOYED [a]			
		Number	Percent of labor force	Measure I [b]		Measure II	
				Number	Percent of labor force	Number	Perc labo
1956	9029	1020	11.3	2013	22.3	2733	3
1957 [d]	8875	701	7.9	1679	18.9	2492	2
1958 [d]	9317	762	8.2	1769	19.0	2616	2
1959 [d]	9345	639	6.8	1675	17.9	2557	2
1960	9518	692	7.3	1758	18.5	2650	2
1961	9995	750	7.5	1846	18.5	2747	2
1962	10459	837	8.0	2040	19.5	2982	2
1963 [d]	10710	670	6.3	1980	18.5	2964	2
1964	10890	641	5.9	1862	17.1	2770	2
1965	11127	805	7.2	1937	17.4	2729	2
1966	11821	837	7.1	1966	16.6	2816	2
1967	12525	999	8.0	2155	17.2	3094	2
1968 [e]	12452	976	7.8	2160	17.3	3187	2
1969 [e]	12605	873	6.9	2028	16.1	3109	2
1970	12758	770	6.0	1893	14.8	3032	2
1971	12911	666	5.2	1758	13.6	2953	2
1972	13701	867	6.3	1996	14.6	3105	2
1973	14140	690	4.9	1899	13.4	3086	2

[a] Unemployed plus the full-time equivalent unemployment of the visibly underemp

[b] Visibly underemployed defined as those persons reported employed at work for than 40 hours during the survey week and wanting additional work.

[c] Visibly underemployed defined as those persons reported employed at work for than 50 hours during the survey week and wanting additional work.

[d] Interpolated by taking the average of the previous and the following years wi May and October surveys.

[e] Interpolated by taking the average of the 1968 and 1971 figures.

SOURCE: Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

TABLE 3

Employed Persons by Class of Worker
for Some Selected Years
(in percent)

Year	Total	SW[a]	S-EW[b]	UFW[c]	NR[d]
1956	100.0	29.1	42.9	27.4	0.7
1960	100.0	30.4	42.0	27.1	0.5
1964	100.0	33.7	40.3	25.8	0.2
1967	100.0	36.8	38.4	24.8	0.1
1971	100.0	34.0	41.7	24.1	0.3
1973	100.0	37.8	39.0	23.0	0.2

[a] Wage and salary worker

[b] Self-employed workers; includes employers

[c] Unpaid family workers

[d] Class of worker not reported

SOURCE: Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

TABLE 4

Average Hours Worked by Employed Workers at Work, 1959 to 1973

Year	AVERAGE HOURS WORKED BY EMPLOYED PERSONS AT WORK			
	All Industries	Broad Industry Grouping		
		A	I	S
1959	41.2	39.7	43.8	44.5
1960	41.6	39.9	44.8	46.0
1961	42.4	40.4	45.6	47.8
1962	42.1	40.7	45.5	44.2
1963	42.3	41.1	45.7	41.9
1964	43.3	41.8	46.4	45.1
1965	44.5	43.4	46.1	44.9
1966	45.0	43.5	48.0	44.8
1967	44.4	42.7	48.2	45.2
1968	44.1	42.5	48.0	45.1
1971	45.7	43.3	47.6	47.3
1972	44.9	42.7	46.9	39.6
1973	44.7	42.6	46.5	45.6

[a] Includes agriculture, forestry, fishing and hunting.

[b] Includes mining and quarrying, construction, manufacturing, electricity, gas, water and sanitary services and transport, storage and communication.

[c] Includes commerce, government, community, business and recreational services, domestic services, personal services other than domestic and industry not reported.

SOURCE: Data on employed persons at work are from the Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

TABLE 5

Full-time Equivalent Employment and its Geometric Growth Rate for Selected Years (in thousands, except percent)

Year	Employed Persons at Work	Full-time Equivalent Employment	
		40-hour week	50-hour week
1957	7,677	7,778	6,223
1968	11,114	12,233	9,787
1971	11,857	13,523	10,819
1973	12,875	14,410	11,528
Geometric Growth Rates			
1957-1968	3.4	4.1	4.1
1971-1973	4.1	3.2	3.2
1957-1973	3.2	3.9	3.9

SOURCE: Data on employed persons at work are from the Bureau of the Census and Statistics Survey of Households Bulletin for the datesvindicated in the table.

in employment in terms of average hours worked relative to the number of persons employed was characteristic only of the 1950's and the 1960's. The reverse was true for the period 1971-73 when average hours worked decreased from 45.7 to 44.7.

3.2 Industrial Absorption of Labor

3.2.1. Broad Industry Labor Absorption

Using Kuznets' three broad industry groupings as defined in Table 4, one sees a shift in the industrial distribution of employment among agriculture, industry and services during the period under study. In 1956, agricultural employment accounted for 60%, industry 18.2% and services, 21.8% (Table 6). By 1973, there was a shift from agriculture to services; agriculture's share came down to 54.3% while that of services increased to 27.5%. During the same period, industry's share remained at 18.2%. For the intervening years between 1956 and 1973, the agricultural share of total employment showed a steadily decreasing trend although it increased in 1970 (based on the census) and 1971. The industries in the industry sector which experienced increases in their relative shares of employment were mining and quarrying, construction, and public utilities, while manufacturing and transport and communication showed decreases in their relative shares. Practically all industries in the services sector, namely, commerce, government, community, business and recreational services,

Industrial Distribution of Employment for Some Selected Years
(in thousands, except percent)

Major Industry Group	1956	1964	1965	1968	1970	1971	1973
All industries	8009 100.0	10253 100.0	10322 100.0	11476 100.0	11358 100.0	12246 100.0	13450 100.0
A	4798 59.9	5970 58.2	5889 57.0	6417 55.9	6099 56.7	6091 49.7	7306 54.3
I	1455 18.2	1880 18.3	1859 18.0	2120 18.5	2371 25.4	2515 20.5	2450 18.2
S	1750 21.8	2406 23.5	2576 25.0	2943 18.5	2882 20.9	3642 29.8	3693 27.5
Agriculture, forestry, hunting & fishing	4798 59.9	5970 58.2	5889 57.0	6417 55.9	6099 56.7	6091 49.7	7306 54.3
Mining and quarrying	24 0.3	30 0.3	26 0.3	45 0.4	51 0.4	58 0.5	61 0.5
Construction	191 2.4	315 3.1	297 2.9	360 3.1	438 3.8	438 3.6	438 3.3
Manufacturing	993 12.4	1183 11.5	1161 11.2	1311 11.4	1353 11.9	1443 11.8	1406 10.5
Electricity, gas, water & sanitary services	16 0.2	22 0.2	22 0.2	32 0.3	32 0.3	55 0.4	37 0.3
Transport, storage and communication	231 5.8	330 3.2	353 3.4	372 3.2	497 4.4	521 4.3	508 3.8
Commerce	793 9.9	1133 11.1	1117 10.8	1255 10.9	838 7.4	1517 12.4	1565 11.6
Government, community business & recreational services	400 5.0	607 5.9	704 6.8	877 7.6	1122 9.9	1189 9.7	1134 8.4
Domestic Services	320 4.0	409 4.0	488 4.7	505 4.4	738	635 5.2	703 5.2
Personal services other than domestic	155 1.9	234 2.3	239 2.3	260 2.3	6.5	270 2.2	257 1.9
Industry not reported	82 1.0	23 0.2	28 0.3	46 0.4	184 1.6	31 0.3	34 0.3

SOURCE: Data on employment are from the Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table and from the National Census and Statistics Office 1970 Census of Population and Housing.

and domestic services experienced increases in their relative shares with the exception of personal services whose relative share decreased in 1973.

The industrial shift of employment from agriculture to services is a phenomenon which has been observed in both developed and less developed countries. In the case of the currently developed countries, a shift from agricultural employment to industry was first observed then followed by a shift to the services sector. However, the commonly observed shift of industrial employment in many LDC's has been mainly from the agricultural sector to the services sector. The increase in the share of the services sector in the LDC's cannot be fully explained by the same factors which explain a similar trend observed among the presently developed countries. The increase in the services sector among the LDC's may be more the result of the inability of the industry sector to absorb the less productive labor from the agricultural sector. Since the services sector by nature of its production and output allows more opportunities for work-sharing and part-time employment, it easily becomes a depository of the labor force which spills over from the agricultural sector to the nonagricultural sector. This is not to say, however, that the process of development does not explain part of the increase in the services sector's share of total employment. For example, there is an increase in the relative share of commerce out of total employment as an economy becomes more monetized.

3.2.2 Industrial Employment Generation

The employment creation in a sector may be measured by the count of additional employments minus terminated employments in the sector. The difference in the yearly average sectoral employments may be used to approximate this phenomenon although it may not capture all the employment turnover during the period under consideration. For a number of reasons, employment may have been generated and dissolved in one sector during a stretch of time. Biannual and quaterly data may not capture these totally. To the extent that employment regardless of its length may be considered better than no employment, then the biannual and quarterly employment statistics used in this paper underestimate some employment creation of this nature. With this caveat, one can proceed to take a positive difference in yearly average employments to mean more employment positions created than dissolved and vice versa when negative. All the yearly differences (together with their signs) can be added to get a measure of the overall performance of an industry in employment creation during the years being considered.

The actual employment generation in each sector from 1956 to 1973 is shown in Table 7. Agriculture experienced the largest net employment generation of 3,160 thousand (or an annual average of 148 thousand) followed by services which created 1,943 thousand (or an annual average of 114 thousand) and the industry sector with 995 thousand (or an annual average of 59 thousand). Relative to each sector's 1956 employment level, these sectoral employment

TABLE 7

Employment Generation by Broad Industry Grouping, 1956 to 1973
(in thousands, except percent)

YEAR	Annual Change in Employment		
	Agriculture	Industry	Services
1956	-	-	-
1957	170	61	(54)
1958	269	54	82
1959	139	(63)	47
1960	4	98	22
1961	186	57	173
1962	320	96	69
1963	69	135	105
1964	15	(13)	212
1965	(81)	(21)	170
1966	394	168	101
1967	379	52	110
1968	(245)	41	156
1969	108.7	131.7	233
1970	108.7	131.7	233
1971	108.7	131.7	233
1972	816	(110)	(119)
1973	399	45	170
Net Total	3160.1	995.1	1943
Average net annual employment generation	147.5	58.8	114.3
Net total employment generation as a percentage of the sector's 1956 employment level	52.3%	68.4%	111.0%
Net total employment generation per sector as a percentage of net total employment generation in the economy	51.8%	16.3%	31.9%

SOURCE: Data on employment are from the Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

generations during the period were increases of 52.3% for agriculture, 68.4% for industry and 111.0% for the services sector. The net employment generated per sector as a proportion of the total net employment generation in the whole economy is 51.8% for agriculture, 31.9% for services and lastly, 16.3% for industry.

A breakdown of the agricultural sector's employment by industry group is shown in Table 8. (Statistics for employment generation by sub-industry groups are available starting in 1966). During the period 1966-73, rice and corn farming generated the most employment, 615 thousand or 42.1% of total positive agricultural employment generation. This is followed by "products not specified" with 483 thousand (33.1%) then hunting and fishing at 159 thousand (10.9%) and coconut farming at 153 thousand (10.5%). Of interest is the decrease in employment in abaca and other fibers farming and in "other crops, horticulture, poultry and livestock production" during the period, with the latter industry group showing a very large decrease in employment. In the absence of data on production, it is difficult to hypothesize an explanation for this. One should not also discount the possibility of a statistical artifact resulting from the 1971 change in sample design.

In the industry sector, manufacturing generated the largest net increase in employment of 413 thousand, followed by transport, storage and communication which generated 276 thousand, then construction with 247 thousand, and mining and public utilities

combined accounted for 58 thousand (Table 9). The more detailed statistics for construction during the period 1966-73 reveal road and bridge construction and building construction to have generated 94.9% of the total positive employment generation in the construction industry (Table 8). On the other hand, it is only the road passenger transport which showed a positive net employment generation of 154 thousand in the transport, storage and communication industry during the period. This attests to the labor-intensive type of road passenger transport developed in the Philippines with increasing urbanization, commerce and trade as shown by the proliferation of small transport vehicles like pedicabs and jeepneys.

In the services sector (Table 10), commerce generated the most number of employment, 770 thousand, followed by government, community, business and recreational services which generated 734 thousand, then domestic services with 383 thousand and personal services other than domestic with 101 thousand. It is interesting to note that in commerce, "other retail trade" generated the most number of employment, 303 thousand or 66.6% of the industry's employment generation (Table 8). Contrary to the impression of a high incidence of work-sharing and employment in the informal sector as in hawking and peddling as an explanation of the large employment in the services sector, there was a net decline in employment in hawking and peddling equivalent to 62 thousand during the period 1966 to 1973. Even sari-sari stores only generated a net employment of 10 thousand for the seven-year period. More

Table 8

Breakdown of Employment Generation in Some Industries for Selected Years, 1966 to 1973

Industry Group	Employment Generation					Net total employment generation, 1966-1973	Net total employment generation of sub-industry as percentage of the total (positive or negative) for the industry	
	1966-1967	1967-1968	1968-1971	1971-1972	1972-1973			
Agriculture, forestry hunting and fishing	379	(245)	(327)	817	399	1023	100.0	(100.0)
Rice & corn farming	181	(83)	(243)	365	395	615	42.1	
Coconut farming	39	17	(104)	128	73	153	10.5	
Sugar cane farming	36	(43)	37	27	(31)	26	1.8	
Abaca & other fibers farming	6	(36)	(54)	2	(1)	(83)		(18.9)
Tobacco farming	(20)	9	(45)	37	25	6	0.4	
Other crops, horticulture poultry, livestock production	14	(1)	(349)	(13)	(3)	(352)		(80.2)
Product not specified	84	(75)	351	123	-	483	33.1	
Agricultural services	-	-	8	1	9	18	1.2	
Hunting and fishing	6	(16)	66	155	(52)	159	10.9	
Forestry including logging and forestry services	33	(17)	6	(7)	(19)	(4)		(0.9)
Construction	9	125		(5)	8	137	100.0	
Road and bridge construction	24	39		(6)	3	60	43.8	
Building construction	(15)	86		(3)	2	70	51.1	
Other construction	-	-		4	3	7	5.1	

Table 8 cont'd

Industry Group	Employment Generation					Net total employment generation, 1966-1973	Net total employment generation of sub-industry as percentage of the total (positive or negative) for the industry	
	1966-1967	1967-1968	1968-1971	1971-1972	1972-1973			
Transport, Storage and Communication	(6)	(5)	149	(35)	23	126	100.0	(100.0)
Road passenger transport	22	1	133	(7)	5	154	100.0	
Other transport, brokerage	(27)	12	9	(37)	21	(22)		(75.9)
Storage, warehousing, communication	(1)	(18)	7	9	(4)	(7)		(24.1)
Commerce	55	27	263	41	7	393	100.0	(100.0)
Wholesale trade	19	23	73	(30)	(16)	69	15.2	
Sari-sari store	(29)	13	70	16	(60)	10	2.2	
Hawking and peddling	32	(54)	(34)	(16)	10	(62)		(100.0)
Other retail trade	29	32	131	63	48	303	66.6	
Banks, real estate, insurance	4	13	23	8	25	73	16.0	
Government, community business, recreational services	30	(45)	311	(107)	54	333	100.0	(100.0)
Public schools	18	17	102	(47)	33	123	36.9	
Private schools	7	1	30	(7)	13	44	13.2	
Schools not specified	-	-	-	(1)	-	(1)		(100.0)
Government services excluding schools	1	25	85	(13)	13	111	33.3	
Private community, business, recreational services	4	1	94	(39)	(5)	55	16.5	

Table 9

Employment Generation in the Industry Sector, 1956 to 1973
(in thousands, except percent)

YEAR	Annual Change in Employment				
	Mining & quarrying	Construction	Manufacturing	Electricity gas, water & sanitary	Transport, storage & communication
1956	-	-	-	-	-
1957	1	33	15	9	3
1958	3	17	28	(5)	11
1959	11	(45)	(26)	2	(5)
1960	(5)	29	43	(2)	33
1961	(1)	16	17	(1)	26
1962	4	21	49	9	13
1963	(6)	36	80	0	25
1964	(1)	17	(16)	(6)	(7)
1965	(4)	(18)	(22)	0	23
1966	1	6	119	9	33
1967	22	9	26	1	(6)
1968	(4)	48	5	0	(8)
1969	4.3	26	44	7.7	49.7
1970	4.3	26	44	7.7	49.7
1971	4.3	26	44	7.7	49.7
1972	(6)	(9)	(47)	(13)	(35)
1973	9	9	10	(5)	22
Net total	37	247	413	21	276
Average net annual employment generation	2.18	14.53	24.29	1.24	16.24
Net total employment generation as a percentage of the sector's 1956 employment level	154.2	129.3	41.6	131.3	119.5
Net total employment generation as percentage of net total employment generation in "I" sector	3.7	24.8	41.5	2.1	27.7
Net total employment generation per industry as a percentage of the net total employment generation in the economy	0.6%	4.1%	6.8%	0.3%	4.5%

SOURCE: Data on employment are from the Bureau of the Census and Statistics for the dates indicated from the table and from the National Census and Statistics Office 1970 Census of Population and Housing.

employment generation was experienced in the more organized sectors of commerce, namely, financial institutions (like banks, real estate and insurance) and wholesale trade which generated 73 thousand and 69 thousand, reseectively.

A further breakdown of the sub-groups within government, community, business and recreational services sheds some light on the sources of employment in this industry. Public schools generated the most number of employment, 123 thousand (mostly teachers), during the period (Table 8). Other government employment generated 111 thousand. In effect, the government sector generated 234 thousand from 1966-73.

Table 11 gives statistics on government employees during the period 1959-73 from the Civil Service Commission Annual Reports. Government employment increased from 287 thousand to 569 thousand or a 98.3% increase in 14 years. This increase implies an average annual geometric growth rate of 4.8% as compared to the 3.2% growth rate of total employment during the same period. The government sector accounted for an average of 4.1% of total employment. During the 14-year period, government generated a total net employment of 282 thousand. The high count of government employment recorded by the BCSSH Labor Survey relative to that of the Civil Service Commission reports may be the result of the inclusion of casuals in the former count and not in the latter. Government shows some dramatic increases for 1959-60, 1961-62, 1964-65 and 1968-69.

Table 10

Employment Generation in the Services Sector,
1956 to 1973
(in thousands, except percent)

YEAR	Annual Absolute Change in Employment				
	Commerce	Government, community, business & recreation-al services	Domestic services	Personal services other than domestic	Industry not reported
1956	-	-	-	-	-
1957	(1)	(14)	(18)	13	(34)
1958	31	17	30	17	(13)
1959	27	54	(23)	(2)	(9)
1960	(28)	(5)	13	10	32
1961	63	62	29	(4)	23
1962	64	22	10	4	(31)
1963	102	13	(7)	29	(32)
1964	82	58	55	12	5
1965	(16)	97	79	5	5
1966	45	54	4	(16)	14
1967	53	30	40	14	(27)
1968	40	89	(27)	23	31
1969	87	104	43.3	3	(5)
1970	87	104	43.3	3	(5)
1971	87	104	43.3	3	(5)
1972	41	(107)	(24)	(9)	(20)
1973	7	52	92	(4)	23
Net Total	770	734	383	101	(48)
Average net annual employment generation	45.3	43.2	22.5	5.9	(2.8)
Net total employment generation as a percent-age of the sector's 1956 employment level	97.1%	183.5%	119.7%	65.2%	(58.5%)
Net total employment generation as percent-age of the net total employment generation in "S" sector	39.7%	37.8%	19.7%	5.2%	2.4%

Table 10 cont'd

YEAR	Annual Absolute Change in Employment				
	Commerce	Government, community, business & recreation-al services	Domestic services	Personal services other than domestic	Indust not report
Net total employment generation per industry as a percentage of the net total employment generation in the economy	12.6%	12.0%	6.3%	1.7%	(0.8%

SOURCE: Data on employment are from the Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

The increases during the latter two pairs of years may be explained by the presidential elections held during 1965 and 1969. A major portion of the 40.5 thousand increase in employment during the fiscal year ending in 1965 may be attributed to the electioneering (political appointments) of the Macapagal administration for the November election. The decrease in employment of almost 10 thousand in 1966 may be the backlash effect (resignations and dismissals) of the change in administration with the defeat of Macapagal. Similarly, the 45 thousand increase in employment in 1969 could be partly attributed to the Marcos administration's electioneering. However, presidential elections cannot explain the relatively high employment creation for other years especially after 1967. A massive infrastructure program was initiated by the government starting in 1967. The absolute change in employment in 1968 reflects the employment generation of this program. The relatively high employment generation even after 1969 may be attributed to the continuing emphasis on the infrastructure program.

As noted earlier, the interpretation of these statistics should be qualified with the possibility that many of the temporary employment during any fiscal year may not be counted. A classification of government personnel into temporary, provisional and

Table 11

Government Personnel, 1959 to 1973

Fiscal Year ending	GOVERNMENT EMPLOYEES			
	Total	Percent of total employment	Absolute change in employment	Annual geometric growth rate (Percent)
1959	287,118	3.9	-	-
1960	338,823	4.1	51,705	18.0
1961	361,312	3.9	22,489	6.6
1962	396,462	4.1	35,150	9.7
1963	398,786	4.0	2,324	0.58
1964	415,103	4.0	16,317	4.01
1965	455,660	4.4	40,557	9.32
1966	445,891	4.1	(9769)	(2.17)
1967	458,141	4.0	12,250	2.71
1968	481,320	4.2	23,179	4.94
1969	516,557	4.4	35,237	7.07
1970	531,059	4.4	14,502	2.77
1971	530,985	4.3	(74)	(0.01)
1972[a]	550,214	4.1	19,229	3.6
1973	569,443	4.2	19,229	3.5
Net total employment generation, 1959 to 1973			282,325	

[a]The employment figure is derived by averaging those of 1971 and 1973.

SOURCE: Civil Service Commission Annual Reports for the dates indicated in the table.

permanent status[2] shows that an average of 54.3% of government personnel were permanent during the period 1962-71.[3] The rest (45.7%) were either temporary or provisional. The high percentage of temporary and provisional employees in the government sector reflects a very high personnel turnover. This is probably an indication of the often remarked description of the government as a welfare institution which provides employment based more on welfare considerations rather than on productivity considerations as is usual in the private sector. One example of an overt attempt of the government to generate employment for welfare purposes was the Employment Emergency Administration[4] which was started in July 1962. The program was mainly initiated to relieve unemployment.

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[2]Permanent appointment is issued to a person who has met all requirements of the position to which he seeks appointment in accordance with the provision of the Civil Service law and rules. A provisional appointment is issued to a person who has not qualified in an appropriate Civil Service examination but who otherwise meets the requirements for the position. As a general rule, appointment of this nature are subject to termination 30 days from receipt by the appointing authority of a certification of eligibles. A temporary appointment, on the other hand, is issued to a person for a position needed only for a limited period not exceeding 6 months.

[3]Civil Service Commission Annual Reports of 1962 to 1971.

[4]It was created by RA 3466 which envisioned the creation of "maximum employment opportunities for all who are able, willing and seeking to work but cannot find employment, thus increasing mass purchasing power, developing income in rural areas and stimulating economic activity in general."

It provided for preference to employment of the most needy in the locality where a government project was being undertaken. The project came in the form of roads, highways, irrigation, water-works system constructions, land clearance, agricultural extension, reforestation and fisheries development. As a device to employ and generate income among the unemployed, it was a success. In 1962, it was reported that the program had employed close to a million Filipinos. Even before the end of its first year of operation, the program had spent ₱47 million of a 5-year appropriation of ₱100 million.

3.2.3 Labor Absorption in the Manufacturing Sector

Manufacturing has been the main target of policy measures to promote industrialization after the Second World War. It is therefore of interest to look at the employment generation in this sector during the period. Table 12 gives the distribution of total employment in manufacturing by major industry group based on the BCS Annual Survey of Manufactures. Of the industry groups in manufacturing, food has always had the largest relative share, at least a fifth, of total employment among establishments with at least 5 workers. In 1956, it was followed by footwear and other wearing apparel which accounted for a 16.5% share and wood and cork products with 9.6%. Total employment in these three industries came to more than half of the manufacturing employment being considered. By 1971, these three gourps were still top ranking industries in their relative shares of total

employment but textiles came in as second in rank and pushed down footwear and other wearing apparel, and wood and cork products, to third and fourth ranks, respectively. If the industries classified by size of employment were ranked as to their percentage of total manufacturing employment in establishments with at least 5 workers, food and footwear, and other wearing apparel are two industry groups with both their large and small establishments ranking among the top ten in their relative shares of total employment (Table 13).

Employment in the manufacturing sector for establishments with 5 or more workers increased from 206 thousand in 1956 to 421 thousand in 1971 or a 105% increase in 15 years. Of the 221 thousand net employment generated in the manufacturing sector from 1956 to 1971, textiles accounted for 17.3%, the largest share, followed by food with 13.4%, then wood and cork products with 10%, chemicals and chemical products, 7.6%, nonmetallic minerals, 7.3% and electrical machinery with 6.1% (Table 14). The other major industry groups accounted for smaller shares of the net employment generation. Most of the employment generated in manufacturing were in establishments with twenty or more workers (92.0%) as compared to 8% of the total employment generated coming from the smaller establishments with 5 to 19 workers. Of the six industry groups in manufacturing which experienced decreases in employment during the period, five (beverages, tobacco products, textiles, furniture and fixtures, and chemicals

Table 12

Rank of Some Industries According to Relative Share of Total Employment, 1956 and 1971

(in percent)

RANK	1956		1971	
	Major Industry Group	Industrial Distribution	Major Industry Group	Industrial Distribution
	Total Manufacturing	100.0	Total Manufacturing	100.0
1	Food, manufactured	28.1	Food, manufactured	20.9
2	Footwear, other wearing wearing apparel	16.5	Textiles	11.5
3	Wood and cork products	9.6	Wood and cork products	9.9
4	Tobacco products	5.4	Footwear, other wearing apparel	8.9
5	Textiles	4.9	Chemicals & chemical products	6.1
6	Printed and published materials	4.8	Non-metallic minerals	5.2
7	Chemicals and chemical products	4.7	Tobacco products	5.0
8	Beverages	4.1	Metal products	4.3
9	Metal products	3.8	Beverages	3.8
10	Furniture & fixtures	3.1	Printed & published materials	3.6
11	Non-metallic minerals	2.9	Electrical machinery	3.5
11	Transport equipment	2.9	Transport equipment	3.5
12	Miscellaneous manufactures	2.5	Basic metal products	2.8
13	Machinery	2.0	Paper & paper products	2.5
14	Paper & paper products	1.5	Miscellaneous manufactures	2.3
15	Rubber products	1.3	Rubber products	2.2
16	Electrical machinery	0.7	Machinery	1.6
17	Basic metal products	0.6	Furniture & fixtures	1.5
18	Leather and leather products	0.4	Leather and leather products	0.5
19	Petroleum and coal products	a	Petroleum and coal products	0.4

[a] Included in major group Miscellaneous Manufactures to avoid disclosure of information

SOURCE: Bureau of the Census and Statistics Annual Survey of Manufactures for 1956 and 1971.

TABLE 13

Rank of Some Industries by Relative Share of Total Employment, 1956 and 1971

RANK	1956			1971		
	Major Industry Group	Size of Employment	Percent of Total Employment	Major Industry Group	Size of Employment	Percent of Total Employment
1	20 Food, manufactured	L	18.3	20 Food, manufactured	L	15.9
2	24 Footwear, other wearing apparel	L	10.3	23 Textile	L	11.2
3	20 Food	S	9.8	25 Wood and cork products	L	9.0
4	25 Wood and cork products	L	7.9	31 Chemical & chem. products	L	5.8
5	24 Footwear, other wearing apparel	S	6.2	20 Food	S	5.0
6	22 Tobacco	L	5.2	22 Tobacco	L	5.0
7	23 Textile	L	4.1	24 Footwear, other wearing apparel	L	5.0
8	31 Chemical and chemical products	L	3.8	33 Non-metallic mineral	L	4.6
9	21 Beverages	L	3.7	24 Footwear, other wearing apparel	S	3.9
10	28 Printed & published materials	L	3.7	21 Beverages	L	3.7
11	35 Metal products	L	2.9	35 Metal products	L	3.6

S 5 - 19 workers

L 20 or more workers

SOURCE: Bureau of the Census and Statistics Annual Survey of Manufactures

chemical products) experienced decreases in small establishments and only footwear, other wearing apparel experienced a decrease in employment in its large establishments. All the other manufacturing groups experienced positive employment generation for both establishment sizes.

Employment in manufacturing establishments with less than 5 workers was estimated by Nguyen Dac Quy by subtracting the employment in establishments with 5 or more workers (Annual Survey of Manufactures) from the employment statistics provided by the BCSSH Labor Force Survey [9]. He found this difference to be overestimated by an average of 8% as a result of the underestimation of employment in establishments with 5 to 19 workers in the Annual Survey of Manufactures, i.e., 8% of the difference should properly be credited to establishments with 5 to 19 workers. Table 15 gives the adjusted estimates of manufacturing employment by size of establishments for the period 1958-71. Employment in manufacturing establishments with less than 5 workers increased from 710 thousand to 939 thousand or an annual (geometric) growth rate of 2.5% during the period 1958-71. In spite of this increase, the relative share of these establishments' employment of manufacturing's total decreased from 71.0% to 65.1% during the period.

TABLE 14

Top Ten Major Manufacturing Industry Groups in Employment Generation, 1956 to 1971

Major Industry Group	Net Employment Generation, 1956 - 1971	Percent Distribution
All Manufacturing industry groups (5 or more workers)	220,843	100.0
Textiles	38,198	17.3
Food, manufactured	29,503	13.4
Wood and cork products	22,175	10.0
Chemicals and chemical products	16,797	7.6
Non-metallic minerals	16,197	7.3
Electrical machinery	13,461	6.1
Metal products	11,170	5.0
Tobacco products	9,989	4.5
Basic metal products	9,803	4.4
Transport equipment	9,179	4.2

SOURCE: Bureau of the Census and Statistics Annual Survey of Manufactures.

When the net employment generation of the manufacturing sector is assessed using the Annual Survey of Manufactures data from 1956-71, most of the employment generated were found among establishments with 20 or more workers (92.0%) as compared to 8% generated by small establishments with 5 to 19 workers. If one includes Nguyen Dac Quy's adjusted estimates of employment in manufacturing establishments with less than five workers and makes similar calculations but this time covering the shorter period from 1958-71, one finds that even with the shorter period and without the statistics for 1961, 1967 and 1970, net employment generated by establishments with less than 20 workers came to 267 thousand as compared to 216 thousand generated by establishments with 20 or more workers. In other words, the smaller establishments of less than 20 workers generated 55% as compared to 45% generated by the larger establishments with 20 or more workers.

For comparison purposes, let us look at the ranking of the different major industry group in manufacturing by share of employment in 1971. In the smaller coverage of the Annual Survey of Manufactures which includes only establishments with 5 or more workers, food tops the list with 20.9% share of total employment. However, in a more complete count of total employment in the manufacturing sector provided by the BCSSH Labor Force Survey (average for the four quarters in 1971), footwear and other wearing apparel replaces food as top ranking industry in relative employment share equivalent to 26.5%. Food ranks only third

TABLE 15

Employment in Manufacturing Establishments by Size of Employment, 1958 to 1971
(in thousands)

YEAR	Total Employment in Manufacturing	Employment in Establishments with				
		Less than 5 workers[a]	5-19 workers[b]	20-49 workers	50-99 workers	100 and more workers
1958	1000	710	112	33	24	121
1959	1007	707	114	34	23	129
1960	1036	724	113	33	23	144
1962	1070	729	111	34	27	170
1963	1199	827	122	250[c]		
1964	1245	855	124	266[c]		
1965	1161	770	117	273[c]		
1966	1280	877	127	276[c]		
1968	1311	844	142	35	35	256
1969	1291	818	141	30	32	270
1971	1443	939	150	354[c]		

(in percent)

YEAR	Total Employment in Manufacturing	Employment in Establishments with				
		Less than 5 workers[a]	5-19 workers[b]	20-49 workers	50-99 workers	100 and more workers
1958	100.0	71.0	11.2	3.3	2.4	12.1
1959	100.0	70.2	11.3	3.4	2.3	12.8
1960	100.0	70.0	10.9	3.2	2.1	13.9
1962	100.0	68.1	10.4	3.2	2.5	15.9
1963	100.0	69.0	10.2	20.9[c]		
1964	100.0	68.7	10.0	21.4[c]		
1965	100.0	66.3	10.1	23.5[c]		
1966	100.0	68.5	9.9	21.6[c]		
1968	100.0	64.4	10.8	2.7	2.7	19.5
1969	100.0	63.4	10.9	2.3	2.5	20.9
1971	100.0	65.1	10.4	24.5[c]		

[a] Figures obtained from subtraction of employment in establishments with 5 or more workers (Annual Survey of Manufactures) from total employment in manufacturing (Labor Force Surveys) and subtracting 8% from it.

[b] Figures obtained from subtraction of employment in establishments with 20 or more workers from that of establishments employing 5 or more (both from Annual Survey of Manufactures) and adding the 8% taken from the establishments with less than 5 workers.

[c] For establishments with 20 or more workers only.

SOURCE: Nguyen Dac Quy, Small Industry and Employment Creation in the Philippines: A Descriptive Overview, M.A. Thesis, University of the Philippines, 1975, pp. 22-23.

after textiles with its share down to only 13.0% of total employment as compared to the 18.4% of the latter industry (Table 16).

The importance of manufacturing establishments with less than 5 workers is shown by the distribution of employment in each major industry group by size of establishment in the manufacturing sector in 1971 (Table 17). Of nineteen major industry groups in manufacturing (excluding products of petroleum and coal where no data was provided), only seven[5] had less than 50% of ~~its~~ their total employment in establishments with less than 5 workers. All the others had more than 50% in this group. Footwear and other wearing apparel had the greatest proportion (91.4%) of its total employment in this establishment size followed by machinery, other than electrical and transport equipment.

Nguyen attempted to estimate the changes in employment in the different major industry groups in the manufacturing sector by looking at the number of establishments with 1 to 4 workers in 1961 and 1967 using the data from the economic censuses for these two years. The manufacturing industries which experienced at least 20% increases in the number of establishments with 1 to 4 workers from 1961-67 included food, textiles, footwear and other wearing apparel, printing, rubber, metal product, electrical machinery and transport equipment. He found out that the increase in ricemills accounted for 91.4% of the increase in

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[5] Beverages, tobacco products, paper and paper products, printing, rubber products, chemicals and chemical products, and basic metal products.

TABLE 16

Comparison of Industrial Distribution of Manufacturing Employment for All Establishments with 1 or More Workers (BCSSH) and for Establishments with 5 or More Workers (ASM), 1971

Major Industry Group	A S M			B C S S H		
	Rank	Total employment in manufacturing with 5 or more workers	Industrial Distribution	Rank	Total employment in manufacturing with 1 or more workers	Industrial Distribution
Total Manufacturing		420,988	100.0		1,442,987	100.0
Food, manufactured	1	88,023	20.9	3	187,971	13.0
Textiles	2	48,328	11.5	2	265,487	18.4
Wood and cork products	3	41,708	9.9	4	122,168	8.47
Footwear & other wearing apparel	4	37,294	8.9	1	382,424	26.5
Chemicals & chem. products	5	25,716	6.1	8	38,682	2.7
Non-metallic minerals	6	21,741	5.2	6	71,525	5.0
Tobacco products	7	21,257	5.0	13	25,350	1.8
Metal products	8	18,129	4.3	9	37,861	2.6
Beverages	9	15,921	3.8	11	31,031	2.2
Printed & published materials	10	15,343	3.6	15	24,455	1.7
Electrical machinery	11	14,906	3.5	7	43,203	3.0
Transport equipment	12	14,749	3.5	5	75,743	5.2
Basic metal products	13	11,689	2.8	16	12,893	0.9
Paper and paper products	14	10,433	2.5	17	9,597	0.7
Miscellaneous manufactures	15	9,722	2.3	14	25,067	1.7
Rubber products	16	9,186	2.2	18	8,612	0.6
Machinery	17	6,869	1.6	10	35,001	2.4
Furniture and fixtures	18	6,349	1.5	12	29,278	2.0
Leather & leather products	19	1,922	0.5	19	5,382	0.4
Petroleum & coal products	20	1,703	0.4	20	-	-

SOURCE: Bureau of the Census and Statistics Survey of Households and Annual Survey of Manufactures, 1971.

TABLE 17

Manufacturing Employment Distribution
By Major Industry Group By Size of
Establishment, 1971
(percent)

Major Industry Group	Size of Manufacturing Establishments		
	TOTAL	1 - 4 Workers	5 or More Workers
Total, manufacturing	100.0	70.7	29.3
Food, manufactured	100.0	53.3	46.7
Beverages	100.0	48.7	42.3
Tobacco products	100.0	16.1	83.9
Textiles	100.0	79.3	20.7
Footwear & other wearing apparel	100.0	91.4	8.6
Wood and cork products	100.0	65.7	34.3
Furniture and fixtures	100.0	78.1	21.9
Paper and paper products	100.0	-	100.0
Printed & published materials	100.0	41.7	58.3
Leather & leather products	100.0	64.2	35.8
Rubber products	100.0	-	100.0
Chemicals & chemical products	100.0	33.5	66.5
Products of petroleum & coal	100.0	-	-
Non-metallic minerals	100.0	69.6	30.4
Basic metal products	100.0	9.7	90.3
Metal products	100.0	52.1	47.9
Machinery except electrical	100.0	80.5	19.5
Electrical machinery	100.0	65.5	34.5
Transport equipment	100.0	80.5	19.5
Miscellaneous manufactures	100.0	61.0	39.0

FOURCE: Bureau of the Census and Statistics,
Annual Survey of Manufactures, 1971.

establishments of 1 to 4 workers in food. In textiles, the increase of establishments was mostly in spinning, weaving and finishing mills producing native textiles. Most of the expansion in the footwear and other wearing apparel industry came from the increase in production of wearing apparel other than footwear. The biggest share in the increase of establishments of 1 to 4 workers in printing came from the increase in commercial printing. In the case of rubber products, the more than hundred percent increase in units with less than 5 workers was due to the increase in establishments in tires and related products, mainly in activities concerning tires retreading, recutting, vulcanizing and repairing. Related to this industry is the similarly greater than a hundred percent increase of establishments with less than 5 workers in transport equipment mostly found in motor vehicle and motorcycle repair shops and ship/boat building and repairing. In the metal products industry the increase of establishments was predominantly in the production of metal cans, boxes and containers, cutlery handtools and general hardware, fabricated structural metal products and architectural and ornamental metalworks. Lastly, in the case of electrical machinery, apparatus, appliances and supplies, the increase in establishments were mainly in electrical industrial machinery and apparatus, batteries, electrical lamps and wires, household electrical appliances and household radios, tv sets, phonographs and accessories.

3.3 Class of Worker Characteristics of Labor Absorption

The class of worker distribution of the employed reveals other characteristics of employment which further qualify the extent of employment generation in the economy during the period under study. Table 3 summarizes the distribution of employed persons by class of worker for some selected years. There was still a high proportion of unpaid family workers although the relative share of wage and salary workers increased from 29.1% in 1956 to 37.8% in 1973. The proportion of self-employed workers decreased from 42.9% to 39.0% and that of the unpaid family workers also decreased from 27.4% to 23.0%. The large size of unpaid family workers equivalent to 25.6% of total employment or 2.5 million workers is too large to justify as employment by choice of those concerned. It is possible that many were in this class of worker due to the lack of employment opportunities. Hence, their being counted as employed should not be considered a satisfactory state of the employment situation in the economy.

The industries which account for a major portion of the wage and salary workers, in the order of their importance, are agriculture, manufacturing, government, community, business and recreational services, domestic services and commerce (Table 18). Of interest is the trend in the relative shares of these different industries from 1957-73. Agriculture's share decreased from 27.0% to 19.6%. The relative share of government, community,

business and recreational services increased from 15.1% to 21.1%. There was hardly a change in the relative share of manufacturing which remained at about 17.0% while that of commerce and domestic services both increased from 7.3% to 8.6% and from 12.8% to 13.6%, respectively. Among the self-employed workers, agriculture accounted for a major portion, 68.8%. It was followed by commerce, manufacturing, personal services and transport, storage and communication. The relative share of agriculture among the self-employed workers remained practically constant at 69% from 1957-73. Manufacturing's share of this class of worker decreased from 12.2% to 8.2% while commerce' share increased from 13.6% to 17.3%. Transport, storage and communication also experienced an increase in its relative share by 1% while that of personal services decreased by the same magnitude. As in the case of the self-employed, the unpaid family workers were mostly employed in the agricultural sector. The sector accounted for at least 85% of the unpaid family workers. The other industries with large relative shares in this class of worker were manufacturing and commerce. There was a very slight increase in the share of agriculture and of commerce while that of manufacturing decreased during the period 1957-73.

What do these trends in the industrial distribution of each class of workers imply? First, the increase in the relative share of government, community, business and recreational services among the wage and salary workers from 1956-73 made it

TABLE 18

Employed Persons by Major Industry Group, BBy Class of Worker, 1957, 1968 and 1973 (in thousands, except percent)

MAJOR INDUSTRY GROUP	1957			1973		
	SW[a]	S-EW[b]	UFW[c]	SW[a]	S-EW[b]	UFW[b]
All industries	2379	3501	2250	5130	5167	3133
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, forestry hunting and fishing	27.0	68.8	84.5	19.6	68.9	87.0
Mining and Quarrying	1.1	0.1	0.1	0.9	0.2	0.1
Construction	8.6	0.6	0.1	8.0	0.6	0.3
Manufacturing	17.4	12.2	7.7	16.6	8.2	4.1
Electricity, gas water and sanitary services	0.8	*	*	0.7	0.0	-
Commerce	7.3	13.6	6.4	8.6	17.3	7.5
Transport, storage and communication	7.9	1.3	0.2	7.9	2.0	0.1
Government, communication, business and recreational services	15.1	0.7	0.1	21.1	0.9	0.2
Domestic services	12.8	*	0.1	13.6	0.0	0.1
Personal services other than domestic	2.1	2.9	1.1	2.7	1.9	0.8
Industry not reported	0.3	*	0.1	0.4	0.0	0.1

[a] salary workers

[b] self-employed workers; includes employers

[c] unpaid family workers

* less than 0.1 percent

SOURCE: Bureau of the Census and Statistics Survey of Households Bulletin for the dates indicated in the table.

account for the largest proportion of this class of worker by 1973 such that it more than equaled the share of agriculture. The great bulk of employment in this sector was in government (where all employees are paid) and, hence, attests to the increasing role of government in direct employment generation.

Second, the decrease in the relative share of manufacturing in the self-employed class of worker is an indication that the sector is getting more organized and its establishments getting larger such that there are less self-employed in the sector. This development is further manifested by the decrease in manufacturing's relative share of the unemployed family workers from 7.7% to 4.1% during the period. As the sector gets transformed from the small single proprietorship establishments, unpaid family workers are displaced in the evolving more organized larger establishments with modern formal management systems.

Third, the increase in the relative share of transport, storage and communication among the self-employed is an indication that the continuing monetization and industrialization of the economy has created a large demand for transportation services. This sector allows for self-employment as reflected in the proliferation of owner-driven cabs, jeepneys, and pedicabs in many urban areas and also in the countryside.

Fourth, commerce continues to create employment in the services sector of the relatively small-scale type of

establishments. Its share of the self-employed increased from 13.6% to 17.3% which is complemented by a corresponding increase in its relative share of unpaid family workers from 6.4% to 7.5%.

Lastly, personal services show a decrease in its relative share among the self-employed which might be an indication of the trend towards large establishments with paid workers rather than single proprietorship-one person establishments or single proprietorships with unpaid family workers.

3.4 Labor Absorption in the Organized and Unorganized Sectors

The large unorganized sector is further proof of the serious unemployment problem since it reflects the large number of low productivity workers in the economy. Table 19 summarizes the distribution of employment between the organized and the unorganized sectors in some industries during the period 1961-71. The total employment in domestic services is considered to be in the unorganized sector. After domestic services, commerce was the most predominantly unorganized sector during the period (81.8%), fol-owed by personal services (74.7%), then by transport, storage and communication (71.1%). From 1961-71, there were decreases in the percentage of those employed in the unorganized sectors in all these industries except in transport, storage and communication. The latter may be explained by the increased

TABLE 19

ıt In The Organized And Unorganized Sectors Of Some Industries
1961, 1967 and 1971

1961				1967				1971			
t a l ıd)	(%)	Orga-nized (%)	Unorga-nized (%)	T o t a l (thousand)	(%)	Orga-nized (%)	Unorga-nized (%)	T o t a l (thousand)	(%)	Orga-nized (%)	Unorga-nized (%)
	100.0	15.3	84.7	1153	100.0	20.8	79.2	1562	100.0	18.6	81.4
	100.0	38.2	61.8	395	100.0	26.1	73.9	530	100.0	22.5	77.5
	100.0	-	100.0	538	100.0	-	100.0	667	100.0	-	100.0
	100.0	83.3	16.7	529	100.0	85.5	14.5	641	100.0	88.1	11.9
	100.0	23.4	76.6	245	100.0	25.3	74.7	280	100.0	27.1	72.9

ables 30 and 31 of ILO, Sharing in Development, 1974, pp. 179, 181.

demand for road transport and the greater possibility of self-employment in this sector. To further describe the extent of employment in the unorganized sector, Table 20 gives a percentage distribution by industry for the years 1961, 1967 and 1971. Commerce accounted for the largest percentage, followed by domestic services, then transport, storage and communication, personal services, and finally, community, business and recreational services. By 1971, there ~~was some~~ were slight shifts in industrial distribution away from commerce and personal services towards transport, storage and communication, and community, business and recreational services.

A comparison of cash earnings in 1956 and 1973 will indicate which industries were characterized by relatively high rates of unemployment. Table 21 gives us the median cash earnings for May 1956 and average cash earnings for May 1973. The two industries which experienced decreases in real cash earnings were construction and domestic services. Although real cash earnings in government, community, business and recreational services, and personal services did not show any decrease, they increased by very small magnitudes compared to the other industries. Therefore, one can conclude that these four industries, especially the first two, have been depositories of low productivity labor.

TABLE 20

Employment in the Unorganized Sector in Some Industries, 1961, 1967 and 1971
(in percent)

Services Sector	1961	1967	1971
Commerce	51.0	46.2	48.3
Transport, storage and communications	12.3	14.8	15.6
Domestic services	25.2	27.2	25.4
Community, business and recreational services	2.1	2.5	2.9
Personal services	9.4	9.3	7.8
TOTAL	100.0%	100.0%	100.0%

SOURCE: ILO, Sharing in Development, 1974, Table 30, p. 179.

(In pesos, except percent)

TABLE 21

Industry	May 1956		May 1973		Weekly Cash Earnings Index (1956=100)	
	Median Cash Earnings	Deflated[a] (1965 = 100)	Average Cash Earnings	Deflated[a] (1965 = 100)	Undeflated	Deflated
BOTH SEXES	14.1	19.9	51	26.2	361.7	131.7
Agriculture, forestry, hunting & fishing	6.8	9.6	30	15.4	441.2	160.4
Mining & quarrying	21.3	30.1	70	36.0	328.6	119.6
Manufacturing	15.2	21.5	57	29.3	375.0	136.3
Electricity, gas, water and sanitary services	27.3	38.6	85	43.7	311.4	113.2
Construction	22.0	31.1	50	25.7	227.3	82.6
Commerce	16.3	23.0	60	30.8	368.1	133.9
Transport, storage and communication	18.4	26.0	56	28.8	304.3	110.8
Government, community, business recreational services	28.7	40.5	80	41.1	278.8	101.5
Domestic services	9.3	13.1	14	7.2	150.5	54.9
Personal services other than domestic	13.3	18.8	40	20.6	300.8	109.6
Industry not reported	20.7	29.2	311	159.9	1,502.4	547.6

[a]The following Consumer Price Ind ces for the Philippines were used: 1956: 70.8; 1965: 100.0; and 1973: 194.5. Since the published CPI Philippines series starts in 1957, the same change in CPI Manila from 1956 to 1957 was assumed to hold for the CPI Philippines.

4 ANALYSIS OF LABOR ABSORPTION IN THE PHILIPPINES DURING THE PERIOD 1956 to 1973

The extent of factor employment depends on the state of technology, relative factor prices, the level of output and output mix. Technology may constrain the extent to which a factor is employed in production. However, in most cases, there is a range of factor combinations one can choose from. Therefore, relative factor prices together with the level of output and its composition determine factor employment. In an economy where there is surplus labor and scarce capital, if the market were allowed to function freely, the prices of labor relative to capital would lead to the choice of labor-intensive techniques. The higher the level of output and the greater the tendency for the output mix to be biased towards goods which use more labor than capital then the higher the labor absorption in the economy. This analysis indicates the variables which may explain the extent of labor absorption.

4.1 Industrial Employment and Output

In the absence of capital data for different industries during the period under study, we shall attempt to describe labor absorption further by examining output in relation to employment. Table 22 gives the geometric growth rate of employment (G_n) and income (G_y) and their ratio (G_n/G_y) which we shall call employment-output coefficient. The period under study is divided into two sub-periods, 1956-68 and 1971-73 as defined by the years with

continuous BCSSH employment data. During the first period, construction had the highest $^{G}n/^{G}y$ of 1.9 followed by transport-utilities and services each registering a $^{G}n/^{G}y$ of 1.1. Manufacturing had the lowest $^{G}n/^{G}y$ of 0.4. For the second period, agriculture showed a dramatic increase in $^{G}n/^{G}y$ from 0.6 to 2.7 which was the highest. All the other industries' $\left(^{G}n/^{G}y\right)$'s decreased. That of transport-utilities became negative (-1.7) and also that of manufacturing (-0.2). Employment in construction had a zero growth rate but the industry had the highest ^{G}y of 24.0%. Services, on the average, experienced a decline in $^{G}n/^{G}y$ to .01. If we look at the $^{G}n/^{G}y$ for the whole period 1956-73, we notice that the highest employment-output coefficient of 1.1 is observed for services (which is composed of government-community-business and recreational services, domestic services and personal services). Services is followed by construction and transport-utilities which both show a $^{G}n/^{G}y$ of 1.0 then commerce with 0.8 followed by agriculture and mining with 0.7 each. Manufacturing comes last with 0.3.

For the whole economy, the $^{G}n/^{G}y$ increased from 0.7 during the period 1956-68 to 0.8 for the period 1971-73. Using the broad industry groupings of agriculture, industry and services, only agriculture experienced an increase in the coefficient from the first period to the second as indicated earlier, whereas, industry and services both showed decreases from 0.6 to 0.1 and from 0.9 to 0.3, respectively. If we look at the whole period of 1956-73,

TABLE 22

Employment (n) and Output (y) Growth Rates By Industry,
1956 to 1973

Industry	1956 - 1968			1971 - 1973			1956 - 1973		
	Gn	Gy	Gn/Gy	Gn	Gy	Gn/Gy	Gn	Gy	Gn/Gy
ALL INDUSTRIES	3.0	4.6	.7	4.7	6.3	.8	3.1	4.7	.7
A	2.4	4.1	.6	9.1	3.4	2.7	2.5	3.7	.7
I	3.1	5.1	.6	(1.3)	9.8	(.1)	3.1	5.9	.5
S	4.3	4.6	.9	1.4	5.4	.3	4.4	4.6	1.0
Agriculture, forestry, hunting & fishing	2.4	4.1	.6	9.1	3.4	2.7	2.5	3.7	.7
Mining and quarrying	5.2	5.6	.9	2.5	5.9	.4	5.5	7.4	.7
Manufacturing	2.3	5.7	.4	(1.3)	8.6	(.2)	2.0	6.1	.3
Construction	5.3	2.8	1.9	0	24.0	0	4.9	4.9	1.0
Transport, storage and communication	4.0	4.5	1.1	(1.3)	6.2	(1.7)	4.6	4.9	1.0
Electricity, gas, water & sanitary services	5.8			(19.8)			4.9		
Commerce	3.8	5.3	.7	1.6	5.9	.3	4.0	5.2	.8
Government, community business & recreational services	6.5	4.3	1.1	(2.4)	5.0	.01	6.1	4.2	1.1
Domestic services	3.8			5.1			4.6		
Personal services other than domestic	4.3			(2.5)			3.0		

n - employment in thousands y - National Income, 1967 prices in million pesos

SOURCE: Employment data are from the Bureau of the Census and Statistics Survey of Households for the dates indicated in the table. National Income data are from the NEDA Statistical Yearbook of 1975.

services had the highest G_n/G_y of almost 1.0 followed by agriculture with 0.7 and, finally, industry with 0.5.

Let us define labor intensity by the employment-output ratio which in the study will be measured man years per thousand pesos of output and compare it with the incremental labor-output ratio for the period 1956-73. Table 21 summarizes these ratios by industry. All industries, with the exception of construction and services, had lower incremental labor-output ratios as compared to their labor intensity in 1956. Construction had a 0.6 incremental labor-output ratio as compared to 0.4 labor intensity in 1956 while services had an incremental labor-output ratio of 0.4 as compared to its labor intensity of 0.3 in 1956. The other industries, namely, agriculture, mining, manufacturing and commerce had lower incremental labor output ratios relative to labor intensity in 1956 while the utilities had the same incremental labor-output ratio and labor intensity. Hence for the period under study, only construction and services improved their labor absorption per unit of output.

4.2 Analysis of Labor Absorption in Some Industries

We will attempt to explain the labor absorption experience in terms of the effect of industrialization policy measures on relative factor prices, the state of technology and some institutional considerations.

4.2.1 Agriculture

Employment in the agricultural sector is dominated by rice and corn farming employment (see Table 8). The technology in rice and corn agriculture have been generally labor-using, and one can speculate that there was no substantial departure from the traditional agricultural technology during the 1950's and the 1960's. The extent of capital intensity in rice and corn agriculture maybe explained by the extent of the cooperative movement and the development and adoption of new crop varieties requiring new proportions and types of inputs. As of 1960 most farms ranged from 1.7 to 5.6 hectares (except in the case of sugar where it was 13.9 hectares)[10, Table 7, p. 14]. This range of farm sizes is not likely to be widely mechanized in the sense of using tractors to plow and prepare the soil, fertilizer and insecticide sprayers, mechanical weeders, harvesters and threshers. Mechanization of small-scale farming would be too expensive without a cooperative organization among farmers. Cooperatives only started to get established in the 1970's. Attempts of the government to form cooperatives among farmers in the 1950's were not successful. The change in the structure of land ownership which was started in 1963 but gained momentum only in the latter part of the 1960's may have made some landlords consolidate their lands and farm them, most likely with the use of more modern technology than what the farmer tenants used. However, there is no reason to believe that farm owners tilling their land would

TABLE 23

Labor Intensity and Incremental Labor - Output Ratio By Industry
1956 to 1973

Industry	n		y		Δn	Δy	Labor Intensity (n/y)	Incremental Labor-output ratio ($\Delta n/\Delta y$)
	1956	1973	1956	1973	1956-1973	1956-1973	1956	1956-1973
All Industries	8009	13450	14188	29268	5441	15080	0.56	0.36
A	4798	7306	5091	8623	2508	3532	0.94	0.71
I	1455	2450	3621	9094	995	5473	0.40	0.18
S	1750	3693	5476	11551	1943	6075	0.32	0.32
Agriculture, forestry, hunting & fishing	4798	7306	5091	8623	2508	3532	0.94	0.71
Mining & qyarrying	24	61	209	734	37	525	0.53	0.07
Manufacturing	993	1406	2309	6167	413	3858	0.43	0.12
Construction	191	438	537	950	247	413	0.36	0.60
Transport, storage and communication Electricity, gas, water & sanitary services	247	545	566	1234	298	677	0.44	0.44
Commerce	793	1565	2018	4706	772	2688	0.39	0.29
Government, community, business & recreational services Domestic services Personal services other than domestic	957	2128	3458	6845	1171	3387	0.28	0.35

n - employment in thousands y - National Income, 1967 prices, in million pesos

SOURCE: Employment data are from the Bureau of the Census and Statistics Survey of Households for the dates indicated in the table.

National Income data are from the NEDA Statistical Yearbook of 1975

generally tend to be more progressive than tenants. It is, therefore, very possible that the average agricultural technology used in the Philippines would still be that of the traditional.

High yielding varieties of rice and corn became more disseminated in 1968. Their effects started to be felt after that. These varieites need higher levels of inputs than the ordinary ones. They need 300% more fertilizers and insecticides and 50% more labor, especially, for weeding purposes. In effect, they do not constitute only a new seed variety but also a whole different way of farming from the traditional, therefore, any change in capital intensity would not manifest itself as part of the new technology but as an effect of the modernization of agricultural practices which would likely spill over to the use of more modern agricultural implements.

Coconut farming which accounts for the next largest proportion of agricultural employment continues to be traditional in its techniques. In a 1966 survey of 12 provinces, it was found out that coconut farmers were unenthusiastic about management practices which were likely to improve productivity [6, pp. 23-24]. Sugar farming and forestry and logging are two agricultural activities which are relatively capital-intensive. It is very likely that there was no dramatic change in their technology during the period under study. The same can be said for tobacco farming though it has been found that the farmers in this activity have been known to respond very strongly to economic incentives. Livestock

production on a commercial scale is relatively modern and likely to be capital intensive compared to backyard scale of production. The growth of livestock production, however, is more of a recent phenomenon starting only in the 1960's.

On the average, the technology in agriculture seems to indicate that it would still remain traditional rather than mechanized or modern. However, the serious encouragement by the government of cooperatives and credit facilities for farmers together with land reform in the 1970's may increase mechanization or capital intensity in the farm. For the period under study, the continuous high labor absorption in agriculture is partly explained by the slow modernization of technology used in agricultural production.

Agricultural productivity may be explained by different patterns of agricultural resource use before 1960 and after 1960. In the first period, the increase in agricultural productivity was mainly caused by the increase in land area placed under cultivation. However, after 1960, cultivated area per worker started to decrease and the continuous increase in agricultural productivity (whether measured by output minus input or output per hectare per worker or output per worker) was caused by multiple cropping, increase in irrigation, and increased use of fertilizer [11, Table 85, p. 443].

One must be careful about making generalizations regarding the extent of mechanization in agriculture or, in general, the pattern of agricultural resource use. Regions would differ by crop and also by technique of production. Evidences gathered in surveys of rice production do not unequivocally show that mechanization would lead to labor displacement. (See review of surveys done in this area in [11, pp. 525-531]).

The increase in labor absorption in the agricultural sector may be explained not only by the continuous increase in agricultural productivity based on activities which make use of more labor inputs but also a likely effect of the agrarian reform which has been given additional impetus from the late 1960's through the 1970's. It is very possible that farmers' income increased as a result of agrarian reform, specifically, former tenants who are now farm owners, i.e., amortizing owners. In a computation made by the ILO study (1974) for share tenants, their increase in income as represented by the improvement of the present value of their income stream is 84% (at 20% discount rate) [11, pp. 487-488]. This improvement in income is obtained through the lower payments to landowners during the period of amortization. There is also an expected change in the land-owners' income as a result of land reform. Both changes would imply a reduction in income inequality in the rural sector which in turn would likely have demand effects to the extent that these two groups have different demand functions, i.e., the landowners tend to purchase products which

are more urban based and likely to be more capital-intensive whereas tenant farmers demand products which are more rural based and more labor-intensive. Hence, land reform may be expected to improve employment. The increase in farm income will also encourage an increase in demand for rural based products which will increase nonagricultural activities and employment. A study of labor absorption in nonagricultural activities in Nueva Ecija by Arthur Gibb (1972) cites the increase in demand for good and services with increase in farm income. New off-farm and nonfarm jobs reported by farm household members included work as tricycle and jeepney drivers, agricultural laborers, dressmakers, storekeepers, retailers and others [11, pp. 509-510].

4.2.2 Manufacturing

Manufacturing has been the most favored sector of the economy by the government's industrialization policy measures after the Second World War. A review therefore of the policy measures to pursue industrialization during this period would explain to a great extent the development of the manufacturing sector and that of other sectors of the economy.[6] As a result of

[6] The subsequent discussion draws heavily from J. Power and G. Sicat, The Philippines, Industrialization and Trade Policies (part of a series on industry and trade in some developing countries), OECD, London: Oxford University Press, 1971.

the balance of payments problems besetting the economy after the Second World War, a system of import and foreign exchange controls were initiated and made effective in 1950. These controls restricted the importation of consumer goods and provided for liberal importation of capital goods, intermediate goods and raw materials. The strategy of import-substitution by protecting the domestic market through highly priced competitive imports and relatively lower cost of domestic production as a result of cheap importation of inputs became the principal policy instrument to promote industrialization starting in the 1950's. As a result of that, manufacturing became a leading sector with output growing at an annual average of 12.3% from 1950-56. However, its growth started to taper off after 1956.

By the late 1950's, the domestic market was starting to impose a limitation on the expansion of the manufacturing sector. In addition there was a continuous dependence of the manufacturing sector on imports which strained the balance of payments. The foreign exchange earning primary sector was neglected by the government and discouraged by the overvalued foreign exchange rate. Since no further tightening of import controls on non-essentials was possible without affecting the output of manufacturing, the government decided to devalue and initiate a gradual decontrol program in 1960 which was finally completed in 1962. However, the manufacturing sector continued its import substitution development. It continued to perform badly in the 1960's with an

output growth which averaged only 5% and this may be explained by the continuation of the same problem which beset the sector by the latter part of the 1950's. The former controls were placed by the highly protective Tariff Law of 1957 (which was further revised during the period 1961-65) with protective capabilities that approximate those of the exchange controls of the 1950's. Hence, it has a similar bias in favor of the manufacturing sector and capital intensity. The manufacturing sector became a lagging sector during this decade, unable to create backward integration and to develop exports. This together with the inflation resulting from the expansion of the money supply before the 1969 November election led to another foreign exchange crisis. The government decided to devalue in 1970 but once more without any substantial trade liberalization.

Another government industrialization policy is the use of tax incentives to encourage the growth of particular industries. Immediately after 1946, a law was passed exempting new and necessary industries from the payment of internal revenue taxes during the first four years of organization. This was followed by a more generous tax exemption law in 1953, then by the Basic Industries Act in 1961. The most comprehensive law encouraging particular industries (the Investment Incentives Act) was passed in 1967. It granted new tax incentives to industries that qualified as "pioneer" and/or "preferred." For the first time also, the same law explicitly granted incentives for exports which no previous tax incentive legislation did.

The Board of Investment (BOI) was created to implement this Investment Incentives Act. BOI's role of establishing priorities for industries that export, which are labor intensive, which use a high proportion of domestic materials, and (by the 1970's) are regionally dispersed in effect counter the relative factor price distortion resulting from the tariff system and import controls. The performance of the BOI in successfully accomplishing these objectives is limited by the extent of contradictions among these different goals. The encouragement of labor-intensive industries is only one of its goals. In a study by Noriega [15, pp. 114-125] which assesses the performance of the investment priority plans for the first five years of their existence based on a set of investment criteria, such as, commercial profitability, backward linkage effect, forward linkage effect, balance of payments/capital effect and labor intensity, it was found out that the industries included or registered with the BOI had an average labor intensity (defined as labor-output ratio) of 1.1 or greater than unity ratio performance. In the case of the export priority plans for the first three years, the average labor intensity for all industries came to 1.13. If we were to compare this with the labor intensity in Table 21, we would consider the BOI registered firms with labor-output ratios of 1 as good. However, this ratio may not be high enough if one really wants to put priority on labor absorption.

An analysis of the BOI incentives done by the ILO Report estimated the total fiscal incentives benefits accruing to industries registered with the BOI [11, pp. 611-621]. It was found out that the relatively capital-intensive industries were getting the major poriton of total benefits and the industries registered with the BOI were concentrated in the relatively large firms. The bias toward large firms indicates a bias toward capital intensity and inefficiency in capital use as indicated by the strong positive correlation between size and capital intensity (as measured by the ratio of fixed assets to employment), and a strong negative correlation between capital intensity and capital productivity [11, p. 616]. Based on these findings, the BOI has not been successful in encouraging labor-intensive industries.

There was an attempt to stimulate employment by permitting the deduction (not to exceed 25% of export revenue) of the cost of direct labor and local raw materials utilized in the manufacture of export products from taxable income. However, there has been no study of the extent to which this particular incentive has encouraged employment.

It seems that government attempts to industrialize up to the present continue to distort relative factor prices in favor of capital-using technology. So far, three main policy instruments adopted by the government to pursue industrialization has been discussed, namely, import and exchange controls, tariffs, and tax

incentives. These encouraged the development of assembly type manufacturing which depended on foreign exchange to finance its importation of capital goods, semi-processed parts and raw materials and did not enable the sector to continue its fast growth beyond the 1950's. The sources of foreign exchange earnings were traditional exports whose development were not given attention until the late 1960's. Hence, without backward integration within the manufacturing sector and significant export of manufactured goods, any stagnation in the traditional exports would slow down manufacturing growth. On the whole, these policy instruments favored capital-intensive techniques over labor intensive ones. In addition, the relative factor prices were further distorted by preferential lending practices of government financial institutions favoring particular industries.

Bautista examined the pattern of employment in the manufacturing sector by establishment size for two post war sub-periods when contrasting economic ~~policy~~ policies were adopted, i.e., before decontrol in 1962 and post control period up to 1966 [1]. He found a wide variation of employment generation or loss among manufacturing industries by establishment size. During these two periods there was evidence that the composition of organized manufacturing (those establishments with at least 5 employees or more) shifted towards less labor-using industries and large establishments whose labor absorptive capacity had decreased. On the other hand, the employment generation in small scale

manufacturing increased dramatically with the lifting of controls as a result of the higher rate of output growth and technical change towards greater labor use. Therefore, although it was earlier said that there was basically no change in the protective policy of the government towards import substitution, both during the period of import and foreign exchange controls and after decontrol, we cannot unequivocally say that the same labor absorption occurred in manufacturing employment during these two periods. Bautista found a slight decrease of labor absorption in the organized manufacturing sector as a result of the greater share of large establishment. Whatever employment growth gained by the growth of small-scale manufacturing industries during the period of tariff controls must have been offset by the encouragement of large scale manufacturing establishments as a result of the BOI incentives.[7]

4.2.3 Construction

Construction is a sector with very good possibilities for labor absorption in addition to its high backward linkage effect. Construction activity fluctuated during the period under study. The growth rate of its value-added was increasing during the first

[7] See Table 5 of [1], (1973), p. 23.

half of the 1960's, almost became constant in the latter half then started to pick up again in the 1970's mainly due to government construction [11, pp. 191-193]. Construction activity is highly seasonal. It is a sector where a high proportion of low skill manpower can be employed. In 1971, 89% of the industry's total employment were manual workers and craftsmen [11, p. 194]. In addition, there is a high percentage of wage and salary workers in construction. Construction has increasingly become more capital-intensive and import intensive. The investment in durable equipment grew annually by 25% in the 1960's (at current prices), whereas, the growth of construction output amounted to only 9% while that of labor inputs was 6%.[11, pp. 196-197]. The increase of capital intensity in construction may have been caused not only by changes in the price of common laborers, relative to imported capital equipment but also by the compositional changes in the output of the government infrastructure program with the increase in the relative importance of expenditures on highways and telecommunications which are relatively less labor-intensive [11, p. 197].

There has been an attempt on the part of the government to increase the labor absorption of government construction. For example, a committee was created in 1972 to study labor-intensive construction methods. However, there are some factors which may prevent the use of labor-intensive techniques in government construction such as the attitudes of engineers and consultants

whose training predisposes them to use more capital-intensive techniques, the attitudes of external donors who express concern over the productivity of their investment by specifying the use of most modern methods which tend to be more import and capital-intensive, the lack of data to evaluate the comparative advantages of different factor intensity in construction, and, lastly, managerial inefficiencies in the construction projects of the government [11, pp. 202-203].

There was a rapid increase in government's share in the construction industry. In the first half of the 1960's, residential and nonresidential construction grew at an annual growth rate of 21.7% and 18.9%, respectively, as compared to 5.1% for government. This trend was reversed in the second half of the decade when government construction grew at an average annual rate of 21.1% as compared to 4.2% and 1.2% for residential and non-residential construction. When the annual growth rate is averaged for the whole decade of the 1960's, government construction had the highest growth rate of 14.0% followed by 12.0% for residential and 8.5% for the nonresidential construction [7, Table 8, p. 11].

To what extent has construction played a similar role as services or the tertiary sector? As a depository of low productivity labor from both the rural and the urban sectors, we will expect two types of workers in construction: temporary workers who use the construction job as a stepping stone to more permanent jobs

in other sectors and seasonal workers who find employment in construction during the agricultural slack period. Preliminary results of a study by Stretton on employment in the building industry in Greater Manila are still not conclusive on the dominant role of the industry [18]. However, initial findings show the industry to be both a depository of migrants attracted to the city who are unable to find jobs in other sectors and also an industry which attracts migrants to come to the city for higher and more secure employment than those found in nonurban areas.

4.3 Other Factors Influencing Labor Absorption

The general state of technology would also explain partly the labor absorption in the economy during the period under study. Being a latecomer in the development scene is both an advantage and a disadvantage. It is an advantage because the country has a wider range of technology to choose from which it did not have to develop on its own. However, this turns into a disadvantage to the extent that the societies which developed the available range of technology are of factor proportions which are unlike that of the Philippines. Most of the presently developed countries have scarce labor and, therefore, tend to develop capital-using technology. As a result, the Philippines has to choose among relatively capital-intensive types of technology.

The choice is further limited by the Philippine colonial experience. The colonial mentality of the people resulting from this experience is further reinforced by the training of local technicians in developed countries which has made them more inclined to employ these countries' technology. In addition, the continuation of numerous aid and trade agreements tend to stipulate the use of technology available in the donor countries, which are mostly developed countries. All these are aggravated by the lack of encouragement of the development of indigenous technology which would suit the factor proportions in the Philippines. However, even when it is possible to use a relatively less capital-intensive technique, there is the consideration of higher cost and inconvenience of maintaining an older technology though it might give an additional benefit in terms of higher labor absorption. Often times too, subsidiaries of multinational corporations specify conditions concerning production techniques to be used.

The rigidity of production coefficients may not only be contrained by technology but also the availability of other factor inputs in addition to capital. It is possible that there are also scarcities of some manpower skills which would therefore constrain the choice of techniques.

The level and composition of demand in the economy as defined by the distribution of income would also explain labor absorption to some extent. Certain income levels would tend to consume particular commodities which tend to be produced by relatively capital-intensive techniques rather than labor-intensive techniques and vice versa for the commodities mostly consumed by other income levels. An income distribution which results in a low demand for products which are produced by relatively labor-intensive techniques would partly prevent growth of labor absorption in the economy. One of the reasons for advocating a more equitable distribution of income is to increase income of the lower income classes, thereby increasing their demand for wage goods and services which tend to be produced by small and medium scale establishments using relatively labor-intensive techniques. The Philippines is characterized by a relatively unequal distribution of income as described by an average Gini Ratio of .50 in the decade of the 1960's [13, Table 1, p. 10].

Other distortions in relative factor prices may come from institutional efforts of both the government and labor unions to increase the welfare of labor. The Philippines has a series of labor legislation which may be interpreted as raising the cost of labor to employers. Examples are the minimum wage law (1951, 1963 and 1970), the Government Service Insurance System Act (1951), the Woman and Child Labor Law (1952), Industrial Peace Act (1953),

Blue Sunday Law (1953), Social Security Act (1954) and many others. After the imposition of martial law in 1972, all labor legislation has since been incorporated in the Labor Code.

The effect of this labor legislation on relative factor prices depends on the actual enforcement of the various rulings which is a function of the vigilance of law enforcement agencies and whether most members of the labor force benefit from this legislation and would not tolerate noncompliance on the part of employers. It is of interest to note that most of these laws apply to conditions of employment and therefore do not cover members of the labor force who are not employed. Given the high unemployment rate, the unemployed individuals who have no other alternative source of income would consider landing a job the most crucial thing and the conditions of employment only of secondary concern. It has been known that many individuals who are paid less than the minimum wage consent to sign vouchers attesting to their receiving the minimum wage. The need for government fiat to establish a minimum wage implies the absence of economic conditions sufficient to insure that members of the labor force who find employment at least earn enough to maintain an acceptable level of subsistence. The high unemployment and underemployment which make for a loose labor market force the members of the labor force to accept jobs requiring less skills than what they have and to take jobs for less pay than the minimum wage rate. Given the loose labor

market and the shortage of personnel and funds of the Department of Labor which is responsible for the enforcement of labor legislation,[8] a distortion of relative factor prices discouraging labor-intensive techniques resulting from this legislation is doubtful.

However, it is likely for employers to consider the increase in labor cost resulting from this labor legislation before they undertake production or before they choose the technique to use. Therefore, these laws do bias the choice of technology away from labor-intensive production techniques. Also, labor unions are likely agents for enforcing labor legislation in addition to the Department of Labor. A militant labor union in an establishment may effectively pressure the employer to comply with at least the labor laws. But the effectivity of labor unions in this role is limited by the extent of labor unionism among the employed which was estimated by the Department of Labor officials to be around 10% of the labor force or about 1.2 million union members in 1971 [17, p. 54]. The regulation of labor unions' right to strike after the imposition of martial law further weakens labor's bargaining power.

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[8] For an appraisal of the Department of Labor's effectivity in the enforcement of labor legislation, see U.S. Department of Labor, Labor Law and Practice in the Philippines, 1972, pp. 36-38.

5 SUMMARY

The survey data show that between 1956-73, the labor force increased on the average at 2.6% and employment at 3.1% per year. The unemployed averaged 7.4% of the labor force but underemployment and the relative share of unpaid family workers among the employed continued to be large. There was a substantial increase in the services sector employment, especially in relation to sectoral income, which suggests that the services or tertiary sector was becoming the depository of disguised unemployment.

Despite the extensive assistance given to industrialization via import and exchange controls, tariffs, tax incentives, and banking policies, employment generation in industry was disappointing. This was caused by the policies' bias in favor of capital-intensive industries, capital-intensive techniques, and in general, in promoting inefficiencies and low capacity operations. Other reasons for the insufficient labor absorption were the highly unequal income distribution which limited the growth of aggregate demand and the size of the market for many industrial products, colonial mentality, and labor legislation tending to raise the cost of labor.

If the material welfare of labor prods employment generation by industrialization, with all the more reason does it motivate the concern for just and beneficial labor legislation. Minimum wage and similar measures tend admittedly to discourage labor absorption; however, since they also increase the worker's remuneration from employment, such measures should not be subject to policy manipulation for increasing employment.

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