

TABLE 1.17

EMPLOYED FEMALES BY CLASS OF WORKER, 1956-1973, OCTOBER ROUNDS
(In thousands except percent)

Year	Wage and Salary Employed		Self-Employed		Unpaid Family Worker	
	No.	Percent of Total Employed	No.	Percent of Total Employed	No.	Percent of Total Employed
Philippines						
1956	863	31.3	937	34.0	932	33.8
1957	965	33.9	848	29.8	1016	35.7
1958 (Nov.)	895	31.7	841	29.8	1073	38.0
1959	954	32.7	926	31.7	1028	35.2
1960	986	35.0	851	30.2	961	34.1
1961	1173	37.1	892	28.2	1085	34.3
1962	1222	36.1	883	26.1	1266	37.4
1963	1246	35.7	986	28.2	1253	35.9
1965	1307	39.7	902	27.4	1063	32.3
1966	1467	39.2	915	24.5	1343	35.9
1967	1478	38.8	1011	26.6	1313	34.5
1968	1393	40.9	1045	30.6	948	27.8
1971 (Nov.)	1726	42.3	1120	27.5	1121	29.9
1972 (Nov.)	1661	41.7	1127	28.3	1188	29.8
1973 (Nov.)	2033	44.4	1012	22.1	1533	33.5
Average		37.4		28.3		33.9
Urban						
1965	696	61.8	283	25.1	136	12.1
1966	756	60.3	301	24.0	194	15.5
1967	729	61.9	295	25.0	152	12.9
1968	827	63.3	341	26.1	124	9.5
1971	966	64.0	368	24.4	171	11.3
1972	1026	66.3	376	24.3	146	9.4
1973	1227	68.7	376	21.0	182	10.2
Average		63.8		24.3		11.6
Rural						
1965	611	28.2	620	28.6	927	42.7
1966	712	28.6	614	24.7	1148	46.1
1967	746	28.4	716	27.2	1161	44.2
1968	566	26.9	704	33.5	823	39.2
1971	759	29.5	752	29.3	1050	40.9
1972	635	26.1	751	30.8	1042	42.8
1973	806	28.8	636	22.7	1351	48.3
Average		28.1		28.1		43.5

Source: National Sample Survey of Households (NSSH), previously called the Bureau of Census and Statistic Survey of Households (BCSSH) and, earlier, the Philippine Statistical Survey of Households (PSSH).

of employed females in urban areas. The opposite is true for rural areas where unpaid family workers comprise 45.3 percent of employed females, the self-employed, 27.9 percent, and wage and salary workers 25.6 percent.

The October data (Table 1.17) show similar time trends as those for May. When overall averages are taken, however, the October series shows the largest average share going to the class of wage and salary workers (37.4 percent) and the class of unpaid family workers with the second largest share (33.9 percent). For May, unpaid family workers have the highest average share (36.8 percent) and wage and salary workers are second (33.5 percent).

Absorption of female workers into the major industrial groupings is shown in Tables 1.18 and 1.19. Of the ten industry groups cited, agriculture has consistently taken the largest share of the female labor force, averaging 38.8 percent for the May series. This share, however has been declining over the years starting at 44.5 percent in May 1956 and going down to 39.2 percent in May 1974 and fluctuating to as low as 31.4 percent in 1970. The second largest share went to the manufacturing sector, accounting for an average

TABLE 1.18

PERCENT DISTRIBUTION OF EMPLOYED FEMALES BY MAJOR INDUSTRY GROUP 1956-1974, MAY ROUNDS

Year	Agri- culture	Mining & Quarrying	Manufac- turing	Elect., gas, water and sanitary services	Construc- tion	Commerce	Transport, storage & communi- cation	Gov't Com- munity, business & recreation services	Domestic Services	Personal Services
Philippines										
1956	44.5	0.1	22.6	*	0.1	15.5	0.1	4.0	7.8	3.5
1957	36.8	*	25.6	*	0.1	18.8	0.2	4.5	9.0	3.7
1958	41.2	1/	23.0	1/	a	17.2	a	4.2	7.6	4.0
1959	42.1	*	21.6	*	*	18.3	0.1	4.9	9.0	3.4
1961	38.8	0.1	22.9	**	**	17.6	0.3	5.7	8.6	3.5
1962 (April)	44.6	*	19.1	*	0.1	17.0	0.2	5.6	10.0	3.3
1963	43.1	*	20.6	0.1	0.1	18.6	0.2	4.9	8.2	4.0
1964	40.2	*	20.5	*	0.1	20.0	0.2	5.8	9.0	3.9
1965	38.1	a	19.2	a	a	18.9	0.4	7.1	11.7	4.3
1966	39.6	a	18.3	a	a	20.0	0.3	6.8	10.7	3.0
1967	40.0	a	17.8	a	a	20.2	0.3	6.9	11.1	3.1
1968	41.7	a	16.7	a	a	20.0	0.3	7.6	9.3	3.6
1969	37.9	a	17.6	a	a	18.7	0.4	9.3	12.3	3.5
1970	31.4	0.1	19.4	**	0.1	12.0	0.3	2/	2/	2/
1971	32.6	0.1	17.4	*	*	21.4	0.4	11.1	13.4	3.1
1972	35.0	0.3	16.4	0.1	0.1	23.4	0.3	9.9	11.9	2.6
1973	31.6	0.2	15.4	0.1	0.2	23.6	0.5	11.7	13.7	3.1
1974	39.2	0.1	14.8	0.1	0.1	18.7	0.4	11.3	11.8	3.5
Average	38.8	*	19.4	*	*	18.9	0.3	6.7	9.7	3.3

*Less than 0.1%.

**Less than 0.5%.

aTotal too small to show distribution.

1/Mining & quarrying (both male & female) combined with Electricity, gas, water & sanitary services (both male & female). They numbered 21 and 23 thousand respectively for 1958.

2/Gov't, community, business and recreational services; Domestic services and Personal services were combined as Services with a total number of 1,081 females or 27.5% of total employed.

Sources: 1) National Sample Survey of Household (NSSH) previously called the Bureau of Census and Statistics Survey of Household (BCSSH) and earlier, the Philippine Statistical Survey of Households (PSSH).

2) Census (1970).

TABLE 1.19

PERCENT DISTRIBUTION OF EMPLOYED FEMALES BY MAJOR INDUSTRY GROUP 1956-1973, OCTOBER ROUNDS

Year	Agri- culture	Mining & Quarrying	Manufac- turing	Elect., gas, water and sanitary services	Construc- tion	Commerce	Transport, storage & communi- cation	Gov't com- munity, business & recreational services	Domestic Services	Personal Services
Philippines										
1956	41.8	0.1	22.4	0.1	*	17.0	0.2	4.8	9.8	2.7
1957	42.7	-	22.6	-	*	16.4	0.1	4.8	9.3	3.5
1958 (Nov.)	47.7	1/	19.7	1/	-	15.3	0.3	5.0	8.0	3.4
1959	44.2	*	20.7	-	0.1	17.1	0.2	5.2	8.9	3.2
1960	42.5	-	21.9	*	*	15.9	0.2	5.3	9.7	3.7
1961	43.7	1/	19.4	1/	0.1	16.3	0.1	6.8	10.0	3.1
1962	47.0	*	17.9	*	*	16.1	0.2	6.3	9.2	2.7
1963	44.9	-	18.7	*	*	17.8	0.2	6.5	8.4	4.2
1965	37.4	*	17.2	*	*	19.9	0.3	7.9	13.1	3.6
1966	40.7	*	17.2	*	0.1	18.1	0.3	8.2	11.2	3.5
1967	42.2	0.1	17.2	0.1	*	17.6	0.2	8.2	11.1	3.2
1968	34.1	*	17.3	*	0.1	20.1	0.5	10.6	12.5	4.2
1971 (Nov.)	31.7	0.0	15.5	0.1	0.1	21.6	0.5	12.7	14.0	3.4
1972 (Nov.)	34.5	0.1	14.9	0.1	0.1	21.5	0.5	11.8	13.3	3.2
1973 (Nov.)	38.5	0.0	13.0	0.1	0.1	18.5	0.4	12.2	13.7	3.2
Average	40.9	*	18.4	*	*	17.9	0.3	7.8	10.8	3.4

- None reported in sample households.

* Less than 0.05%.

1/ Mining & quarrying (both male and female) combined with electricity, gas, water and sanitary services (both male and female) so that no percentages were obtained.

Source: National Sample Survey of Households (NSSH) previously called the Bureau of Census and Statistics Survey of Households (BCSSH) and earlier, the Philippine Statistical Survey of Households (PSSH).

share of 19.4 percent of females employed. This sector's share has likewise been declining. Coming in a close third with an average of 18.9 percent is the commercial sector, whose share in total female employment has been increasing. Actually, the commercial sector's share has been larger than that of the manufacturing sector since May 1966 (except in 1970), and in May 1974, its share was 3.9 percentage points larger than that of the manufacturing sector. Surprisingly, the next most important sector was the domestic services, which in 1974 accounted for 11.8 percent of total female employment. Government, community, business and recreational services accounted for 11.3 percent in the same year and has shown the largest growth over time, having started with a mere 4.0 percent share in 1956. Personal services accounted for 3.5 percent of female employment and the remaining four sectors - transport, storage and communication; construction; electricity, gas, water and sanitary services; and mining and quarrying - seemed to have remained almost exclusively male industries.

The October series showed the same general patterns of distribution by industry, with average shares slightly higher than in May for agriculture and

the three service sectors. Manufacturing and commerce had smaller shares in October while the remaining sectors showed no observable differences.

Finally, Tables 1.20 and 1.21 show the shares in total female employment of the major occupational groups. In May 1974, the largest share among the occupations went to the group of farm workers (39.0 percent), followed at a distance by sales workers (17.2 percent), service, sports and related workers (14.9 percent), craftsmen, and production process workers (13.8 percent), professional technical and related workers (8.7 percent) and clerical workers (5.1 percent). Executive, administrative and managerial workers comprised an insignificant 0.7 percent of the female labor force and the remaining three occupational group-miners, workers in transportation and communication, and manual workers - had even smaller shares.

Over the period from May 1956 to May 1974, increases were observed in the shares of professional, technical and related workers, clerical workers, sales workers and service, sports and related workers. Administrative, executive and managerial workers, farm workers, and craftsmen and production process workers had decreasing shares and the other occupational groups showed no significant changes.

TABLE 1.20

PERCENT DISTRIBUTION OF EMPLOYED FEMALES BY MAJOR OCCUPATION GROUP: 1956-1974, MAY ROUNDS

	Administrative : Clerical : Sales : Farmers, farm : Miners, : Workers : Craftsmen, : Manual : Service	als : Executive : Workers : laborers and : quarrymen : in transport: prod'n pro- : workers : sports and	ed : and managerial: : related : and related : and communi- : cess workers: laborers : related wor-	rs : workers : workers : workers : cation : : n.e.c : kers																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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in sample households

National Sample Survey of Household (NSSH), previously called, the Bureau of Census and Statistics Survey of Households (BCSSH) and earlier, the Philippine Statistical Survey of Households (PSSH).

PERCENT DISTRIBUTION OF EMPLOYED FEMALES BY MAJOR OCCUPATION GROUP: 1956-1973, OCTOBER ROUNDS

Major Occupational Group	Administrative : Executive : and managerial : workers	Clerical : Workers	Sales : Workers	Farmers, farm : laborers and : fish hunters : workers	Miners : Quarrymen : and related : workers	Workers in : transport & : communication : workers and : rel. workers	Craftsmen, : production : process : workers and : rel. workers	Manual : Workers : & laborers : n.e.c.	Service : sports and : related : rers : n.e.c.
7.1	1.1	10.3	41.8	0.1	-	-	22.0	0.3	12.5
5.9	1.3	10.7	42.6	-	-	-	22.4	0.1	12.3
4.3	1.5	11.0	47.8	-	*	*	19.2	0.1	11.2
5.9	1.4	11.3	44.0	*	*	*	20.5	0.1	11.8
6.5	1.5	9.8	42.5	*	*	0.1	21.6	0.1	13.0
5.7	2.0	10.9	43.7	-	*	*	18.8	0.1	12.8
5.8	1.6	10.2	47.0	*	*	*	17.7	0.1	12.7
5.6	2.1	12.2	43.9	*	*	0.1	18.3	0.1	12.4
7.3	2.9	12.5	37.4	-	-	0.1	16.5	*	16.2
6.2	2.6	11.6	40.7	-	-	-	16.7	0.2	14.7
5.9	2.7	11.6	42.2	0.1	-	-	16.6	*	14.3
7.4	3.7	12.4	34.1	*	0.1	0.1	16.7	0.2	16.6
0.9	4.2	20.8	31.6	0.0	0.2	0.2	14.4	0.1	17.4
0.8	4.9	19.9	34.5	0.1	0.2	0.2	14.0	0.2	16.3
0.6	5.1	17.2	38.4	0.0	0.2	0.2	12.1	0.1	16.8
5.1	2.6	12.8	40.8	*	*	*	17.8	0.1	14.1

in sample households

1 Sample Survey of Households (NSSH), previously called the Bureau of Census and Statistics Survey of Households and earlier, the Philippine Statistical Survey of Households (PSSH).

1.4.3 Working Hours and Underemployment

The female labor force has always kept shorter working hours than the males. In May 1974, the average hours worked by males during the survey week was 46.1 hours while for females this average was 41.9 hours. In Table 1.22, we show that during the same survey week 62.6 percent of the female labor force worked 40 hours and over, 13.9 percent worked 30-39 hours, 14.0 percent worked 20-29 hours, and 9.5 percent worked less than 20 hours. Over the long-run, an average of 53.1 percent of the female labor force worked full time, i.e., more than 40 hours, and the remaining 46.9 percent were part-time workers. On the average, these part-time workers were almost evenly distributed among the three subgroups, with slightly fewer workers in the 20-29 hour group. The average hours worked per week for the period 1956-1974 was 39.5 hours.

Table 1.23 shows that women generally worked longer hours in October than in May. In the October rounds, a larger proportion of the female labor force worked 30-39 hours or 40 hours and over while a smaller proportion worked 20-29 hours or less than 20 hours. Average working hours for the years 1956-1973 was 39.7 hours.

TABLE 1.22

PERCENT DISTRIBUTION OF EMPLOYED FEMALES AT WORK
BY HOURS WORKED PER WEEK AND AVERAGE HOURS WORKED
PER WEEK OF EMPLOYED FEMALES: 1956-1974, MAY ROUNDS

Year	HOURS OF WORK				Ave. hrs worked per week
	Under 20 hrs. (%)	20-29 hrs. (%)	30-39 hrs. (%)	40 hrs. & over (%)	
<u>Philippines</u>					
1956	15.1	14.8	14.6	55.5	44.9*
1957	12.5	19.5	19.7	47.9	39.6*
1958	15.3	17.4	18.3	48.4	38.7*
1959	19.5	13.5	11.5	46.3	36.1
1961	18.2	14.9	17.0	48.5	38.1
1962 (April)	16.5	14.2	18.2	50.8	37.9
1963	19.4	18.2	21.8	40.5	34.8
1964	19.2	14.7	18.7	47.3	37.3
1965	16.0	13.0	15.8	49.7	38.0
1966	19.6	11.8	12.8	55.6	39.6
1967	22.0	13.1	14.3	50.6	37.9
1968	18.0	15.0	16.7	50.0	37.6
1969	13.7	15.7	14.9	55.7	39.9
1971	10.8	12.3	12.1	64.7	43.2
1972	9.3	12.5	16.3	62.0	42.3
1973	11.1	10.7	11.7	66.4	43.1
1974	9.5	14.0	13.9	62.6	41.9
Average	15.6	14.4	15.8	53.1	39.5

Median hours worked.

Source: National Sample Survey of Households (NSSH) previously called, the Bureau of Census and Statistics Survey of Households (BCSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

A large group of women workers considered their working hours insufficient. This group of underemployed women (those who wanted more hours of work) averaged as much as 28.9 percent of the women working less than 20 hours, 25.6 percent of those working 20-29 hours and 23.0 percent of those working 30-39 hours (Table 1.24, May series). This means that approximately one-fourth of the women working on part-time jobs were underemployed. Among full-time women workers, the underemployment rate averaged 10.0 percent in May. October being a busier season, underemployment rates for this month were generally lower (Table 1.25). In Tables 1.26 and 1.27 we see that underemployment rates are significantly higher in the non-agriculture industries for part-time workers but lower for full-time workers.

ed. files with data (1970) and other data. The data is from the 1970 Census of the United States, Bureau of Economic Analysis, Department of Commerce, Washington, D.C. 20540.

TABLE 1.24

PERCENT OF EMPLOYED FEMALES WHO ARE
UNDEREMPLOYED BY HOURS WORKED; 1957-1974, MAY ROUNDS

Year	: Under 20 hrs.	: 20-29 hrs.	: 30-39 hrs.	: 40 hrs. and over
1957	19.8	21.6	22.0	4.8
1958	30.7	25.7	20.2	7.4
1959	30.9	27.9	34.2	6.7
1961	37.3	26.5	22.2	12.0
1962				
(April 1962)	30.5	25.9	27.1	11.5
1963	33.3	28.5	29.2	15.8
1964	26.3	23.9	26.4	13.2
1965	47.8	28.0	26.0	15.6
1966	27.6	29.6	24.7	11.6
1967	30.5	34.4	20.0	12.5
1968	37.6	40.2	32.1	12.3
1969	32.9	26.4	21.4	10.3
1971	21.4	21.4	21.1	8.8
1972	19.5	17.2	14.5	6.1
1973	20.5	18.0	12.6	4.8
1974	16.4	14.8	13.5	4.2
Average	28.9	25.6	23.0	10.0

Source: National Sample Survey of Households (NSSH) previously called, the Bureau of Census and Statistics Survey of Households (BCSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

TABLE 1.25

PERCENT OF EMPLOYED FEMALES WHO ARE
UNDEREMPLOYED/BY HOURS WORKED, 1957-
1973, OCTOBER ROUNDS

Year	: Under 20 hrs.	: 20-29 hrs.	: 30-39 hrs.	: 40 hrs. and over
1956	31.5	38.3	7.1	6.1
1958 (Nov.)	31.1	32.3	22.4	8.0
1959	23.4	23.9	15.6	6.6
1960	41.0	30.5	22.0	8.2
1961	28.9	33.8	32.0	11.7
1962	33.0	27.8	27.8	12.8
1963	27.5	27.6	29.1	10.7
1965	29.9	30.7	28.1	13.7
1966	21.4	30.0	27.6	15.0
1968	37.4	40.3	34.6	14.7
1971 (Nov.)	16.4	12.6	18.7	7.0
1972 (Nov.)	20.5	23.2	10.2	5.7
1973 (Nov.)	17.8	18.2	15.6	4.3
Average	27.7	28.4	22.4	9.6

Source: National Sample Survey of Households (NSSH) previously called, the Bureau of Census and Statistics Survey of Households (BCSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

TABLE 1.26

PERCENT OF EMPLOYED FEMALES WHO ARE UNDEREMPLOYED IN
AGRICULTURE AND NON-AGRICULTURE INDUSTRIES, BY HOURS WORKED 1957-1974, MAY ROUNDS

AGRICULTURE				NON-AGRICULTURE			
Under 20 hrs. : (%)	20-29 hrs. : (%)	30-39 hrs. : (%)	40 hrs. & above : (%)	Under 20 hrs. : (%)	20-29 hrs. : (%)	30-39 hrs. : (%)	40 hrs. & above : (%)
13.8	22.4	22.7	8.3	28.2	26.6	26.3	4.2
27.9	23.5	17.0	11.2	47.1	37.8	25.2	9.0
26.7	22.4	18.3	8.1	41.5	37.2	23.4	9.9
37.2	21.9	19.7	16.7	41.6	35.4	27.7	11.2
28.4	26.0	28.0	17.3	38.0	29.6	30.0	9.5
26.8	29.3	26.3	20.4	48.5	30.7	34.6	15.1
21.9	19.3	26.1	16.5	35.3	31.3	29.4	12.9
26.5	21.4	26.9	16.4	50.4	39.2	28.7	16.4
28.1	24.7	24.7	13.2	30.2	37.5	27.5	11.8
32.6	29.7	16.7	13.5	32.8	44.9	27.6	13.4
55.5	36.0	28.3	14.4	47.0	50.9	41.7	12.4
22.9	21.2	22.5	16.2	37.4	34.8	23.1	8.9
6.0	24.9	22.4	13.6	34.3	21.2	23.1	8.2
9.1	16.1	12.5	9.4	23.2	21.1	20.6	5.6
5.1	14.9	11.3	8.1	29.1	23.5	18.3	2.8
0.0	12.6	10.9	6.7	31.9	21.0	19.9	3.6
4.4	22.9	20.9	13.1	37.3	32.7	26.5	9.7

ational Sample Survey of Households (NSSH) previously called, the Bureau of Census and Statistics Survey of
households (BCSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

TABLE 1.27

PERCENT OF EMPLOYED FEMALES WHO ARE UNDEREMPLOYED IN
AGRICULTURE AND NON-AGRICULTURE INDUSTRIES, BY HOURS WORKED 1956-1973, OCTOBER ROUNDS

A G R I C U L T U R E				N O N - A G R I C U L T U R E			
Under 20 hrs. (%)	20-29 hrs. (%)	30-39 hrs. (%)	40 hrs. & above (%)	Under 20 hrs. (%)	20-29 hrs. (%)	30-39 hrs. (%)	40 hrs. & above (%)
36.8	23.4	17.9	7.6	29.8	26.3	24.3	6.2
29.7	30.8	22.7	11.8	35.3	33.4	22.2	6.3
37.1	20.4	15.2	6.8	38.1	27.7	15.8	6.4
40.3	28.5	24.8	12.7	42.2	32.1	19.0	5.7
26.6	33.2	37.1	19.2	33.5	36.5	24.7	9.3
23.5	24.0	24.4	18.5	42.8	38.3	34.6	10.6
25.1	25.3	27.8	20.7	32.1	33.3	32.1	16.6
24.0	29.4	25.2	16.2	38.9	33.3	32.1	13.3
16.1	21.3	23.0	20.8	32.3	43.1	35.3	13.9
33.6	38.4	36.1	19.0	43.9	43.5	35.1	13.7
13.3	18.1	14.6	9.0	23.0	24.0	21.3	8.7
17.5	17.5	8.1	8.8	25.0	32.0	14.6	5.1
12.9	14.9	14.7	4.4	30.0	25.5	17.1	4.5
26.4	25.0	22.4	13.5	34.5	33.0	25.2	9.3

nal Sample Survey of Households (NSSH) previously called the Bureau of Census and Statistics Survey of
nolds (BCSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

CHAPTER 2

THE ECONOMIC STATUS OF WOMEN: AN ANALYTICAL FRAMEWORK

2.1 Introduction

Equity as an objective of economic development has recently gained ground relative to economic growth. This is reflected in the new research emphasis on problems of employment, income distribution and poverty, and more recently in the interest in the economic status of women. There is a general feeling that women are underpaid, overworked, and ~~subject~~ to economic discrimination, and that the state of equity would be improved if these problems could be solved. The research task is to obtain a better understanding of the economic relationships which bring about the economic status of women. There is a need for a positive theory or model which deals with these relationships. We shall try to point which of these relationships have already been identified by research, as well as those which are important areas of ignorance on which future studies should be focused. While such an economic model is necessarily positive--that is, intended to help explain what it is--the ulterior motive of such a model is actually normative, that is, intended to help bring about a better state of equity.

In this section, we suggest an economic frame for analyzing the economic status of women. The approach is diagrammatical, rather than mathematical, and is summarized in Figures 1-3. Figure 1 deals with the determination of work and income condition for female labor. Figure 2 focuses on the concept of full family income, and points out how, in a general equilibrium setting, such income has feed-back effects on the demand for labor. Figure 3 puts the analysis in a dynamic context, and indicates, how present economic conditions for women can effect future ones through such demographic variables as fertility and family formation.

2.2 Determination of work and Income Conditions for Women.

Figure 1 reflects a model where decision making is done by the family as a unit. This is along the lines of the so-called "new home economics".¹ As the family seeks to maximize its economic well-being, the first consideration is its economic resources. These

¹See Schultz (1974) and Ashenfelter and Heckman (1974). See also Porio, Lynch and Hollnsteiner (1975) for a sociological study as to who among the various family members makes a certain decision. For our purposes, it is not so important who makes a decision as much as the requirement that, whatever the decision, it is made with the economic well-being of the entire family in consideration.

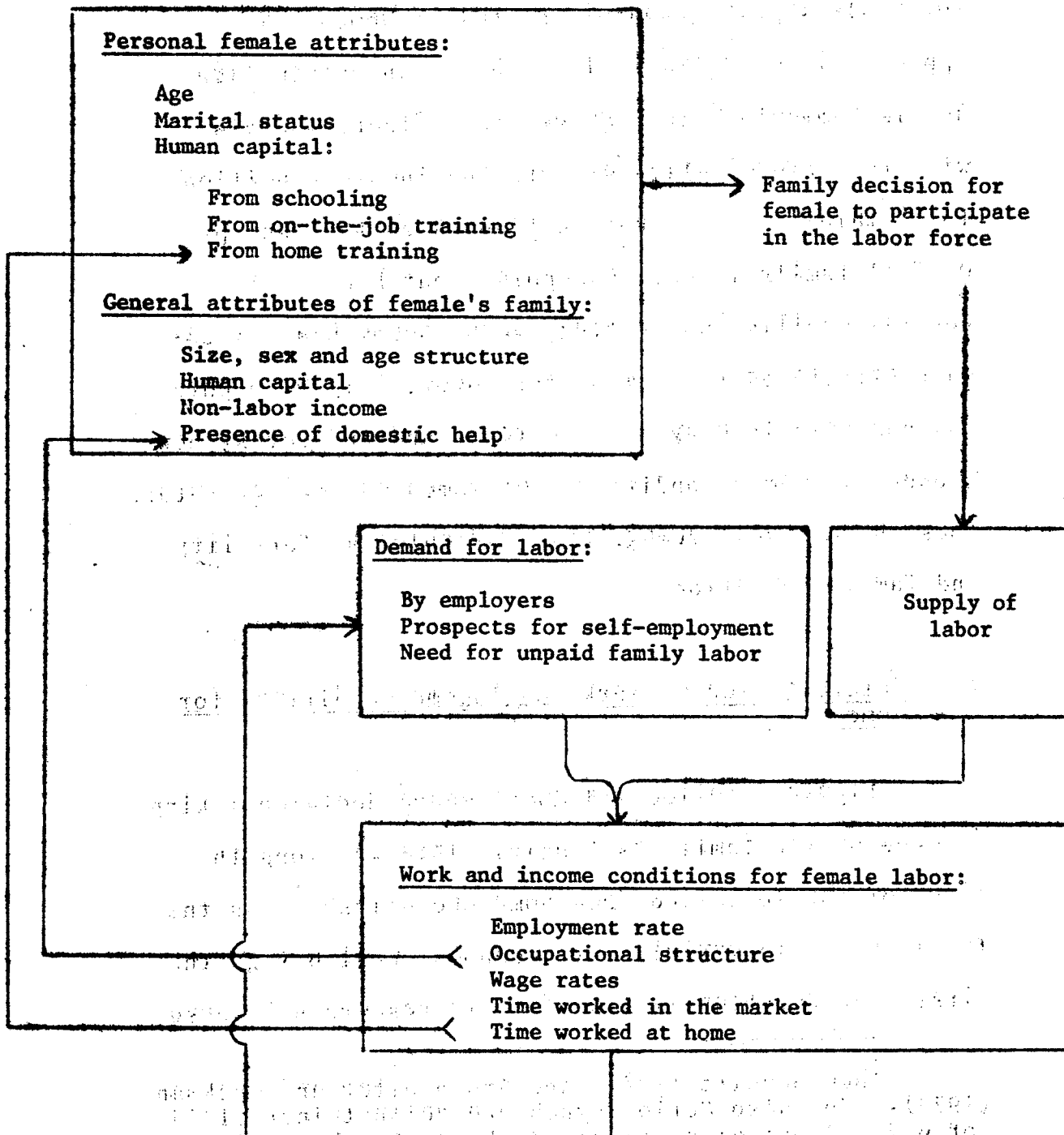


Figure 1

DETERMINATION OF WORK AND INCOME CONDITIONS
FOR FEMALE LABOR

variables, in the uppermost box of Figure 1, are classified as either human or non-human. Some of them are female attributes in particular and others are family attributes in general. To these various attributes there correspond certain earnings or wages, costs, as well as non-pecuniary economic advantages and disadvantages, to which the family responds. The notion of wage-pull is already implicit in these variables. For instance, ~~income~~ opportunities and cost expectations depend on human attributes such as sex, age, and marital status. An important economic resource is the number of people of working age in the family. The time constraints on the family must be considered; if there are young children present, then they have to be cared for, and this can be done by older members of the family as well as by domestic help. The variables are meant to incorporate all the economic anticipations of the family, including the expectation of being able to find work. For instance, if the woman is a college graduate, then she may realize that the unemployment rates for college graduates is rather low and hence not be discouraged from looking for work. It is also possible (and we do find some evidence of this) that women are discouraged from seeking work if their

husbands or other menfolk are unemployed, i.e., the male unemployment rate becomes a general symptom of the overall state unemployment.

The family then decides on the labor force participation of each member of the family. Our main interest, of course, is on the labor force participation of women, as indicated by the arrow. But, at the same time, one should stress that the family is simultaneously deciding on the labor force participation of males, as well as of the children. It is likewise making decisions on all other activities relevant to the family's economic well-being, such as how to invest its non-human capital. Analytically speaking, therefore, the decision on female labor force participation must be considered as taken jointly with many other decisions, rather than as some type of a residual decision, or as a secondary link in a chain of decisions.

✓ With respect to the female labor force participation relationship, one may hypothesize that (a) the effect of an increase in husband's income is positive, (b) the effect of an increase in wife's education could be either positive or negative, (c) the effect of the presence of young children is negative, and (d) the

effect of the presence of domestic help is positive.²

This framework reflects the recent recognition of the importance of time as a resource.³ Human resources are constrained by the time available by the family, since obviously everyone has only 24 hours per day. There are always various opportunities for the use of various hours in the day, and, for each member of the family, decisions must be made on how to allocate the time available. Some of this time is devoted to what is officially known as "work". In the Philippine statistics, this is of three types, (a) self-employment, (b) employment by others and (c) unpaid family labor outside the home. If a person is engaged in or seeking work of any of these types, then he is said to be in the "labor force". However, in our analytical frame, it is also necessary to recognize the time spent in "home-work", such as housekeeping, since such time spent is also one of the joint decisions made by the family.⁴

²See Encarnacion (1973), Mincer (1962), and Rowen and Finegan (1969).

³See Becker (1965).

⁴Thus one may conceive of a person's daily 24 hours as allocated between (a) work in the market, (b) home-work, and (c) leisure as the residual.

In line with the recognition of home-work is the recognition of home-training as a part of human capital. Usually, human capital is said to consist of formal schooling or else of on-the-job training. But, especially when studying the economic status of women, it is vital to consider home-training as a component of human capital. Such training is capable of bringing about a stream of services for family consumption. It is a form of capital which does not occur naturally, but is acquired, as indicated not only by the fact that most women acquire it but also by the fact that many men acquire very little of it. It can be argued that the cultural habit of training young girls, but not young boys, for home-work will leave them with very little choice, later on, on how to spend their time. When home-training has already been "sunk" in women, families themselves would find it inefficient to force untrained men to spend their time in home-work, so as to "emancipate" the grown women from the home.⁵

⁵See Sandell's comment on Zellner (1972). The point also applies to occupational roles which are inculcated at an early age, such as on what constitute "feminine" occupations, and what constitute "masculine" occupations; see chapter 12 of Boserup (1970).

In this framework, the family makes a joint decision on work, receives a joint income, and decides on joint consumption. Since full consumption conceptually includes the value of services from home-work, there is no a priori analytical ground for referring to one member of the family (the male) as the major earner, and another member (the female) as the supplementary earner. The criterion of cash income is definitely inferior to the criterion of full income; and although one could try to estimate the contributions of the male and female members of the family to full income, this is really a difficult econometric task.⁶ If, using the equity viewpoint, one believes that the important income variable is family income rather than individual income, there seems to be little ground for trying to estimate the separate contributions of the sexes (aside from flattering or soothing the egos of the members of one sex).

Instead, we may ask, what is the economic phenomenon which is meant to be described by the term "supplementary earner"? It appears intended to describe the fact that, under most conceivable wage and price structures, it is the men who specialize (are full-time) in work in the

⁶See Gronau (1973).

market, whereas women are more flexible in dividing their time between market and non-market. Women's hours at market-work are typically much less than men's hours, and women move back and forth between the market and the home.

It may be noted that economic literature emphasizes not the direct response of women to their own wages, but their response to other variables; these are the so-called cross-effects -- the effects of men's wages, the effects of the prices of substitutes for home services, etc. Perhaps one should refer to women as "flexible responders" rather than "supplementary earners", since the latter term unnecessarily connotes a minority role. Similarly, it would be preferable to refer to women as flexible workers or joint workers rather than "added workers". The concept of added workers is only valid when the concept of work does not include home-work.⁷

⁷The added worker hypothesis, as stated by Mabry (1973) is that, when in the course of a business cycle men become unemployed, women of the family are induced to enter the labor force. However, Mincer (1962) says that this hypothesis is not validated in the case of the United States. In the Philippines, the inflationary context seems much more important than the cyclical context. When the real wages of men fall in the course of an inflation, family economic well-being will threaten to fall below a critical point unless the women joins the labor force. Encarnacion (1973) argues that there is

Thus the important issue is the variability of women's participation in the labor force. The Philippine female labor force participation rate has varied between 30 and 50 percent over the last two decades.⁸ The general tendency is for the women's labor force participation rate to go down (although this does not happen every year). This is different from the experience in Western countries, where the female labor force participation rate has been rising. In the U.S., Mabry (1973) asserts that the main reasons are (a) the increase in female schooling attainments above the high school level, (b) technical advances in home-work, (c) greater willingness of men to do household work, and (d) the decreases in the average size of the family. In the Philippines, however, the main force depressing the labor force participation rate is the increasing amount of schooling which women

a threshold level of market income, which the family cannot afford to be without. Tidalgo (1975) points out that the real wages of women seem to be much less vulnerable to inflation than the real wages of men, and therefore it is rewarding for women to join the labor force in their effort to offset the effects of inflation on family income.

⁸Such variability is an international phenomenon; see Collver and Langlois (1962).

are undertaking. The proportion of women of school age who are actually in school has been rising very rapidly in the last twenty years, and the gap in the amount of schooling attained between males and females has markedly declined.⁹

With respect to the schooling of women, there are two phenomena which call for further study. In the first place, there is a very high proportion of women having very high education. It appears that the educational preference given by parents to sons over daughters, if it exists, is not consistent for all degrees of schooling. For those families with relatively high income, there would seem to be little reason to discriminate between males and females. Perhaps the favorable proportion of women, relative to men, with high levels of education, is due to the fact that women from upper income families tend to go into jobs which require significant amounts of formal education (such as teaching).

A second puzzle is why, for female college graduates, the labor force participation rate is so

⁹ See chapter by R. Alonzo, "Indicators for Learning," in Mangahas (1976).

much lower in urban areas (77%) compared to rural areas (92%). This is in opposition to the general rule that, for females, the labor force participation rate is greater in urban areas than in rural areas.

One hypothesis might be that college graduates ordinarily work in offices, and that there is less of a commuting problem in rural areas. It has also been argued that (a) because men's cash incomes are less in rural areas, rural wives want to add to family cash incomes; and (b) in rural areas, it is easier for other members of the family to take care of children, and therefore easier for females to work outside their homes. However, these reasons (a) and (b) would seem to apply not only to college graduates but also to non-college graduates.

In spite of the downward trend in the female labor force participation rate, the female labor force has been steadily increasing. The basic force has of course been the growth in the population base. Yet we should note that there are times when the absolute level of the female labor force has fallen, i.e., there are times when the drop in the female labor force participation rate overpowers the basic growth in the population

base. Thus analysis of the female labor force participation rate carries a larger importance, since it does not merely apply a small correction to a broad trend of population growth.

The effect of family size on the female labor force participation rate is negative. Concepcion and de Guzman¹⁰ find that an increase in family size has a larger downward effect on labor participation in urban areas than in rural areas. The explanation they give likewise takes account of the cost of time -- it is less inconvenient for rural females to work and care for children at the same time. Thus, eventually, we may expect the female labor force participation rate in the Philippines to turn upward, and become similar to the Western pattern, since there will eventually be a saturation in the participation of females of school age in the educational sector, and eventually the average family size will decline. Both forces will lead to an increase in the female labor force participation rate.

Labor force participation for females tends to peak in the age group 25-44 (this is a relatively young peak,

¹⁰In Encarnacion (1976).

compared to men).¹¹ It is usually found that women leave the market labor force earlier than men, and that this pattern is clearer in urban areas than in rural areas.¹²

Note that the decision to participate in the labor force, in Figure 1, is entered on the supply side for labor. The supply side also includes such non-family factors as the state of unionization of women, which, unfortunately, is somewhat weak. Of female workers, a little more than 2/5 are wage and salary workers, of which only 4-5 percent are members of unions.¹³

The supply of labor then interacts with the demand for it. In the first place, the demand for labor is derived from the demand for the products which labor produces. In particular, the government is currently

¹¹Therefore the use of an age variable as a linear component in a labor force equation is actually a very rough approximation.

¹²See Bureau of Women and Minors (1974).

¹³See Bureau of Women and Minors (1974). Fox (1964) speaks of Filipino women's pressure groups as being "powerful and feared" -- but it seems that here he is referring to associations such as the Catholic Women's League, whose main purpose is not to raise the economic status of women.

pursuing policies meant to change the composition of production towards activities which are more labor intensive, more export-oriented, and located outside Metropolitan Manila; it is also interested in activities which are food-production oriented. It is thus from the demand side that one rationalizes the use of occupation and industry variables in equations determining labor force status, hours worked, and incomes earned.

Secondly, it is on the demand side where consideration is made of all the legal and institutional rules applied to women, such as 'equal pay for equal work.' Here the general feeling is that government rules make it more difficult for women to be employed outside the home.¹⁴

Thirdly, the issue of sex discrimination may be assigned to the demand side for labor. Much of the modern theory on economic discrimination can be traced to Becker (1971), who gives three categories of discrimination: (a) there can be discrimination from employers, who feel that women are relatively more inconvenient to

¹⁴ See Sison (1963) and Bureau of Women and Minors (1974).

hire than men, and that therefore will hire them only if there is some wage differential between them and men; (b) there may be discrimination from co-workers (say male workers) who do not find it pleasing to work with women, and demand more pay as a consequence; (c) thirdly, there may be discrimination by customers, who feel that they ought to pay women less than men for the same sort of services (for instance customers may feel that women do not make very good mechanics). These notions of economic discrimination include both the issue of prejudice and the issue of ignorance.¹⁵

The interaction of supply and demand give the resulting work and income conditions for females. Our estimated equations for labor force participation, hours worked and earnings are in the nature of so-called reduced-form equations, with some of the predetermined variables taken from the demand side, and some from the supply side. The main features of these work and income conditions are as follows:

¹⁵Zellner (1973) refers to these as deliberate discrimination and erroneous discrimination. Of course, the discrimination can work both ways--for instance some employers may feel that males are not capable of being as good secretary/typists or nurses as females, and may hire such males only if there is some wage differential between them and women.

(1) It is found that unemployment in the Philippines is higher for women than for men. Concepcion and de Guzman¹⁶ say that the higher unemployment rate is due to discrimination in unemployment against women. However, Tidalgo (1975) finds that women find work much faster than men, averaging only 10-1/2 weeks looking for work, versus 15 weeks for men.¹⁷ In this case, a larger unemployment rate for women than for men can only occur if the rate of turnover of women in the labor force is very large. This of course is what would be expected. Women go in and out of the labor force much more frequently than men. Women also tend to be more migratory than men, and this can also contribute to a high rate of turnover in the labor force.

(2) On the other hand, it is found that underemployment is much larger for men, i.e., men tend to say that they would like to work longer hours than they already are working. Concepcion and de Guzman feel that this is due to man's culturally defined role as 'breadwinner'. It is the man who feels the responsibility of providing for the family, as far as market earnings are concerned, and therefore it is up to him to speak up,

¹⁶

In Encarnacion, (1976).

¹⁷ These figures refer to experienced workers.

much more than the woman, and to say that he needs more work.

(3) Women are often part-timers in market work, and in addition their earnings are typically less than male earnings. For November 1973, the Bureau of Women and Minors (1974) found that the average ratio of female to male weekly cash earnings is about two-thirds. Tidalgo (1975) estimated the female-male earnings ratio in the 160's as .76. These differentials are particularly high in professional fields and in clerical fields. There is no difference in agriculture, and there are some instances in which female wages are higher than male wages (domestic services, and footwear and wearing apparel manufacturing). Tidalgo feels that wage differentials are higher in the professional fields, because there is more discrimination when more training is needed.¹⁸

(4) An important result of the interaction of the supply and demand for female labor is the phenomenon of

¹⁸We might restate this: in occupations where training counts or has a high payoff, women can lose out relative to men because their on-the-job training is less, mainly due to discontinuity of their work. See Mincer (1970).

occupational segregation according to sex.¹⁹ The following instances of occupational segregation may be cited: in dressmaking, beauty culture, embroidery and midwifery, virtually all workers are women; the ratio of females to males among nurses is 15:1, among dentists 10:1; among pharmacists 8:1, among domestic helpers 5:1, among chemists and optometrists 1:1, and among secretarial and clerical workers 3:4.²⁰ Another piece of evidence as to which occupations are "overcrowded" with females is from a survey of subjective attitudes as to the occupations in which there should be fewer women than there presently actually are. Porio and others (1975) report that these overcrowded occupations are in services, farming, teaching, other professions, and selling and peddling. One hypothesis regarding the cause of occupational segregation is that it is due to consumer discrimination, rather than to employer or co-employee discrimination.²¹

¹⁹ See Bureau of Women and Minors (1974) and Sison (1963). For a statement of conditions in the United States see Zellner (1972).

²⁰ See Sison, op. cit.

²¹ See Fuchs (1971).

(5) Another result of the demand and supply interaction is the industrial distribution of female employees. The Bureau of Women and Minors (1974) reports that, out of every 100 female employees, 39 are in agriculture, 19 in commerce, 13 in manufacturing, 14 in domestic service, 12 in government, business, community or recreation services, and 3 in other personal services. Attention should be drawn to the high proportion of females in domestic service. This sector is as important as manufacturing, and is of special interest since it has implications for the possibilities of other women, namely their employers, obtaining work outside the home. In the Western model, on the other hand, this domestic service sector is almost nil.²² The importance of recognizing these two distinct classes of women is stressed by Fox (1964, p. 355) who states:

"It is possible to measure the areas of low income and low productivity throughout the entire Philippines by utilizing one criterion, that is, the degree of emigration of young women (and men) to fill jobs in Manila as servants, waitresses and hostesses".²³

²² See Collver and Langlois, op. cit.

²³ By "hostesses" is meant certain nightclub entertainers.

(6) Finally, the supply of and demand for labor determine the distribution of female workers according to class, that is, whether employed or self-employed. In the Philippines, about 1/5 of female workers are self-employed, or much larger than the proportion in Western countries.²⁴ The distinction between employed and self-employed is of relevance in the determination of the wage differential according to sex. Encarnacion (1975) estimates that, among the class of employed workers, females earn about 44% less than males; however, among the class of self-employed workers, females earn only 31% less. This may be due to the greater prevalence of discrimination according to sex in employed situations compared to self-employed situations.

Let us now note some of the feedbacks described in Figure 1: (a) Part of the demand for market labor is self-employment demand, as well as unpaid family labor demand -- these components recognize that many families are also, in effect, firms. Thus the diagram indicates that all the work and income conditions for

²⁴See Fuchs (1971).

female labor affect the demand for female labor by such family firms themselves. (b) The feedback effect with respect to domestic service workers should also be noted. The market at present gives rise to a large servant class, unlike in the West, thus allowing many upper class women to work outside the home. (c) The longer it is that women work at home, the better they become at home-jobs, and the more difficult for them to leave such work, as time goes by. Of course, there are many instances of "successful women" who have managed to put their home-work talents to use in such businesses as cooking, dress-making, baking, etc.

Finally, the location of the stimuli for women to work is also of interest, although Figure 1 fails to call attention to it. Geographical opportunities from work can change, and it has been shown that women are relatively more responsive than men to these geographical opportunities. In the case of national migration, the propensity for females to move is strongest in the age group 15-34.²⁵ In the case of international migration, the most serious issue appears to be that of occupational segregation--in particular, there is a very strong demand at present for Filipino female nurses.²⁶

²⁵See Zacariah and Pernia (1975).

²⁶See Tidalgo (1975).

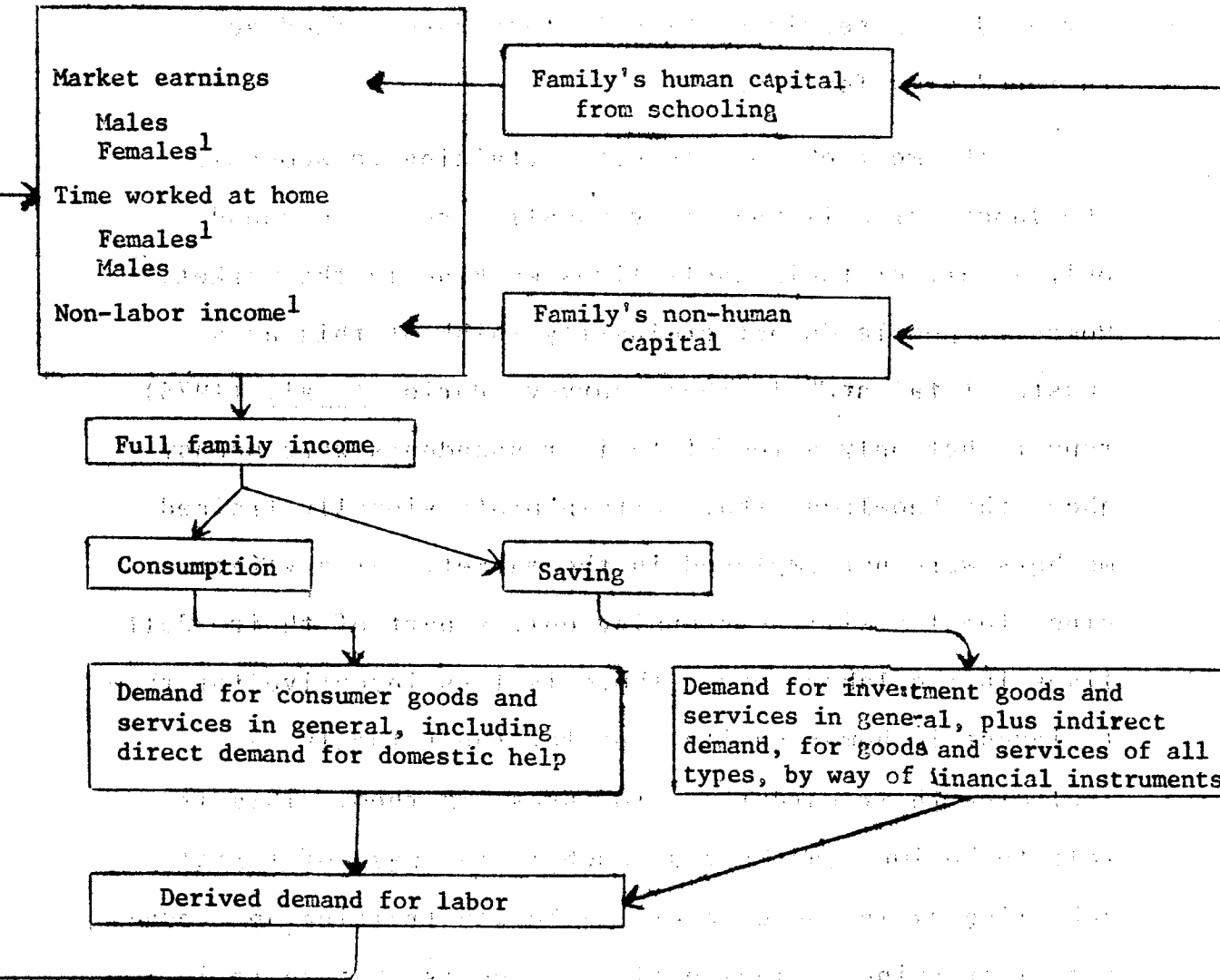
2.3 Full Family Income

Figure 2 emphasizes the concept of "full family income," which includes the effective home income from home-work.²⁷ In this concept, before the woman's income can be considered the "supplement", the difficult job of computing the implicit value of home-work, has to be accomplished. However, it may be argued that there is little need for doing this, inasmuch as the important income aggregate, from the equity standpoint, is total family income rather than income from members of particular sexes... Another issue is that the income of a husband can be attributed not only to his own qualifications, but also to his wife's qualifications.²⁸ (Consider the innumerable instances of writers who acknowledge their wives. Of course, to be symmetric, one should also admit that a wife's productivity can be enhanced by her husband's qualifications). Thus even though 1/5 of women of working age are not in the labor force, this need not be seen as necessarily a waste.

As the diagram shows, full family income is divided into consumption and saving, and saving in turn enhances

²⁷See Gronau (1973).

²⁸See the article by Benham in Schultz (1974).



¹See Figure 1.

Figure 2

DETERMINATION AND SIGNIFICANCE OF FULL FAMILY INCOME

both the human and the non-human capital possessed by the family. Both consumption and saving imply a demand for goods and services which in turn have a feedback to the demand for labor.

The most obvious aspect pertaining to women in the labor force is that they usually expect to spend only a part of their adult lives working in the market.²⁹ However, people do not ordinarily think of this as a "waste of talent." In their survey, Porio et. al. (1975) report that only a few of their respondents were uneasy about the knowledge that certain professionally trained mothers were not employed in the market. At any rate, since females will be spending only a part of their adult lives in the labor force, there is less incentive for them to invest in human capital, or for their family -- including their parents -- to invest in them. This is felt to be important not so much in the case of formal schooling as in the case of on-the-job training and vocational training. Tidalgo (1975) reports that there is a serious lag in training opportunities for female children.

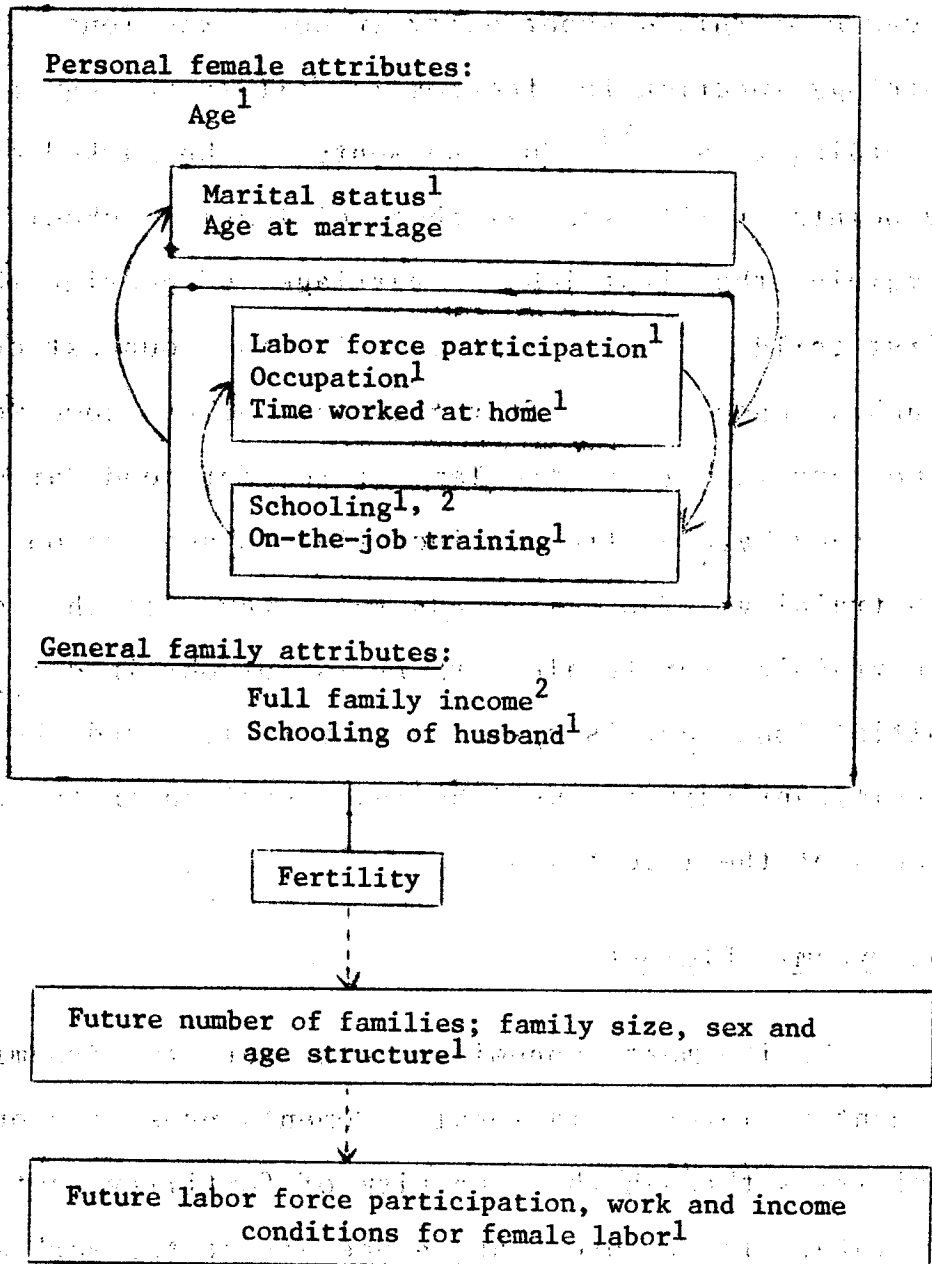
²⁹See Mincer (1970) who estimates that, in the United States, women after marriage spend less than half of their lives in the labor force.

Because of this discontinuity in work experience, the earnings function for females is felt to be segmented according to age.³⁰ Such segments can be marked off by points of life such as those of leaving school, of obtaining the first job, of marriage, of bearing the first child, and the point at which the youngest child reaches school age. After this last point, some women come back to work in the labor force for good, at which time they have a stronger incentive to acquire on-the-job training. Thus, it tends to be the case that on-the-job training for female workers is not obtained in initial jobs, but is spread out over time; and the most significant part may well be that obtained in the early stages of the latest job.

The Dynamic Element

Unlike most economic models, here the dynamic element is intergenerational. Women's present economic activities through the mechanism of fertility, act on the future labor force, and hence affect the work and income conditions for females -- as well as males -- in future generations. In the first place, there is some

³⁰See the article by Mincer and Polachek in Schultz, 1974.



¹See Figure 1.

²See Figure 2.

Figure 3

ROLE OF THE ECONOMIC STATUS OF WOMEN
IN A DYNAMIC ECONOMIC MODEL

degree of conflict between female's occupations or professions with marriage. Marriage can be delayed, and sometimes denied altogether. As the diagram indicates, marriage can be both a determinant of and determined by economic situations. In the Philippines, the average age of marriage has in fact been rising steadily over time, especially in densely populated areas (including those which are rural).³¹ It has been found that wives who do work in the market have lower fertility, and that the differential in fertility between working and non-working wives is wider in more urbanized areas. In rural areas, there is relatively little conflict between child bearing and market work; but the degree of conflict tends to be relatively strong in Metropolitan areas.³²

Another economic implication of marriage has to do with the differential between female and male earnings. Fuchs (1971) has shown that, in the United States, the ratio of female to male earnings is higher for those never-married than for those who have been married. The explanation offered is that those not

³¹See chapter 2 of Flieger and Smith (1975).

³²See Concepcion and Pernia (1975).

married, especially if not expecting to marry, are more likely to stay in the labor force and hence to invest in themselves in the way of schooling and on-the-job training. However, the ratio of female to male earnings falls as age increases. It appears that, among older people, the male advantage in obtaining higher ranking positions becomes more predominant (this is discussed further in the next section).

The actual overall trend in fertility is downward. This is due to the decline in fertility among women in the age group 25-44, which overpowers a slight upward trend in fertility in the age groups 15-24 and 45-49. Two important economic determinants of fertility are the educational attainment of the wife, and the income of the family. In the first place, large increases in educational attainment appear to have negative effects on fertility.³³ Secondly, according to Encarnacion's hypothesis (1973), the effect of income on fertility changes from positive to negative as income increases. At very low incomes, the effect of increases in income may be essentially to improve the health of the wife, and hence lead to more live births. However, above a

³³ See article by Concepcion and de Guzman in Encarnacion (1976).

threshold income, the typical negative relationship between income and fertility, attributed to a desire by couples themselves for fewer children, is observed.

2.4 The Economic Status of Women and the Equity Context

An appropriate context for the study of the economic status of women would appear to be that of the promotion of economic equity within society as a whole. Actually, in the concept of economic equity, the standard unit of comparison is not the individual, but the family. This is because, given the income of the family unit, the standard presumption is that the distribution of consumption within the family is equitable, according to family standards of equity.³⁴ Thus we have argued that the incomes of the various members of the family (wherever individual incomes can be clearly distinguished, which is often quite difficult), or labor

³⁴This applies to those economic benefits and costs which can be shared. One aspect of the quality of life in which it is difficult to find means of tradeoffs is life expectancy itself. In 1970, the female life expectancy at birth was estimated to be 61 years, versus only 55 years for males. See article by Concepcion and de Guzman in Encarnacion (1976).

expended of the members of the family must be lumped up. Economic equity within society is properly evaluated by comparing the economic well-being -- proxied, let us say, by income -- between families rather than between members of one family, or between the different sexes.

However, in making such comparisons, it should be stressed that some interfamily differences are less socially distressing than others. Economic inequity, as distinguished from inequality, consists in those differences, which by society's standards are underserved, in economic well-being between families.³⁵ Some differences may be socially acceptable, for instance, those due to differences in age structure. A family of five working-age adults may have a greater income than a nuclear family of a married couple with three young children. Unless society considers it unfair that the age structures of different families are dissimilar, the consequent income differences can be regarded as "natural" in the sense of being inoffensive to society's standards of economic equity.

³⁵ See Mangahas (1975).

The relevance of the economic status of women to the concept of economic equity lies in a consideration of the sex structure of families. Economic discrimination as to sex intensifies economic inequality in the society since families differ as to sex structure and discrimination against women is relatively more inequitable to those families with high female:male ratios. It is particularly burdensome to those where the household head is female, which is the case for about 10 percent of Filipino families. Some female household heads are widowed, and some are separated or divorced from their husbands. Some are never married. Perhaps there are no male members of the household or perhaps the male members are too young, too sick, or poorly trained, or for some other reason incapable of contributing sufficiently to the family's economic well-being to warrant becoming in the family's own view, the family head.

Another point is that, following the trend in developed countries, we may expect some spatial mobility, and therefore an increasing tendency for young females to be separated from their families of origin. These young females will form so-called "one-person families" and will be at an economic disadvantage as individual women as though she were the same as the average woman. See Sandell (1972).

under situations of economic discrimination. Thus, as increasing spatial mobility breaks down families into smaller and smaller units, the distinction between family equity and individual equity gets less and less.

On the other hand, it may be argued that part of the difference in earnings potential between men and women should be attributed to physical differences. Here, the implicit view is that the attributed earnings difference should be considered "natural" or non-discriminatory. For instance, the size and strength of females is on the average less than males, and this has been used as a ground for women receiving less pay on jobs where strength counts. (But, symmetrically, women should therefore also receive more pay on such jobs where smallness of size counts). Another point is that the average is not the same as the variance. Because the distributions of strength of men and women overlap, then in principle, strong women should get paid more than weak men in jobs where strength counts, and small men should get paid more than large women in jobs where small size counts.³⁶

³⁶The point is that it is discriminatory to treat an individual woman as though she were the same as the average woman. See Sandell (1972).

Obviously, there is the difference in biological roles. Child-bearing, as well as breast-feeding, cannot be transferred to males. Thus work discontinuity, to some extent, cannot be helped either, and therefore, some people may feel that it is natural that women, on account of their work discontinuity, should get less on-the-job training, less promotions, etc.³⁷ Of course, there are also certain economic advantages from women's biological functions, but in modern society employers cannot reap these gains.³⁸

³⁷ Sandell (1972) points out that the burden of the risk of providing training for women can be shifted away from firms to appropriate public institutions. This can lead to a greater equality of pay per unit of time, even though it cannot change the fact of discontinuity of work for women. Therefore, there would still be lesser market income earned by females due to lesser hours worked, rather than due to lesser pay per unit of time; in this case the smaller income might be treated as a socially acceptable inequality.

³⁸ One recalls that women in slave societies could be used as breeders. In modern societies, such advantages cannot be internalized by economic producing units, with the possible exception of the farm family. It may be argued that farm wives can produce more workers for the family, which will lead to economic benefits for parents in their older years.

Another reason for income inequalities which may be regarded as socially acceptable is that of rank. While accepting that persons of higher rank should receive higher income, one can question whether high ranks are equally open to males and females. Fox (1964) argues that, in the Philippines, leadership and the maintenance of discipline are traditionally male functions, and that this may explain why few women attain positions of high rank. Cohen (1971) reports that women do not complain so much about discrimination in the way of low pay for equal work as much as about their poorer chances for promotion as compared to males. Tidalgo (1975) says that discrimination against women with respect to promotions is camouflaged by employers' claims that those in higher ranks have the qualifications of "leadership potential," and "ability to work with others".

Thus, any model may list several determinants of differentials between men and women with respect to income, or other economic advantages and disadvantages.³⁹

³⁹For instance, Cohen (1971) classified the following reasons for sex differences in compensation-- (1) wage discrimination, (2) occupational tradition, (3) special demands by women concerning their working conditions, and (4) qualifications and productivity of females versus males.

However, the user of any model still has to put in his own values as to which reasons for the differentials are justifiable or equitable, and which are not. Perhaps one can even admit that there may be degrees of "justifiability". For instance, one may wish to classify as unjustifiable the differentials due to the various types of economic discrimination which have been described. One can find objectionable the unequal access of women to the various types of human capital. On the other hand, one may wish to consider differentials in earned income due to differences in productivity related to size and strength as justifiable.

We may also speculate that families are probably cognizant of sex economic inequity and can take action to compensate for it. For example, if the family can afford to send all of its children to college, it may allow the females, rather than the males, to continue into graduate training. Or it can decide to give females a larger inheritance of property than males. Fox (1964) asserts that the property which a woman brings to marriage is hers; if she dies childless then her property is supposed to go back to her siblings or else to her parents.⁴⁰

⁴⁰However the empirical base for this assertion is not stated.

Another issue is that of selective mating; this can both compensate for inequities as well as intensify them, although the latter is more likely.⁴¹ In the Philippines, there appears to be a very high correlation between husband's education and wife's education, thus indicating the existence of positive selective mating.

In conclusion, it should be emphasized that these many issues concerning justifiability or acceptability cannot be resolved by economic theory -- this is where society's values enter, and need to be articulated. What socially-oriented economic model-building can try to do is to recognize these many areas of possible conflicts of values, and make an effort to be sufficiently detailed in order to be meaningful to alternative, even opposing, social viewpoints.

⁴¹As Mincer (1970) points out, if family income is defined as the sum of husband's income and wife's income, then the variance of family incomes is equal to the sum of the variances of husband's income and wife's income, plus twice the co-variance between the husband's and wife's incomes.

CHAPTER 3

LABOR FORCE PARTICIPATION OF WOMEN

3.1 Determinants of Labor Force Participation

In this section we present the results of our attempt to estimate a labor supply function for married women. In studying labor supply, we view the individual's participation in the labor force as a two-stage decision. The first stage involves the individual's decision to enter, or not to enter, the labor force - i.e., the determination of one's labor force status. The second stage, which applies only to those who join the labor force, is the decision on the extent (or degree) of one's participation - i.e., the determination of the working hours of the labor force participant. Thus we have run two sets of regression equations - a first set on the determinants of the labor force status of the married woman and a second set on the determinants of the working hours of the employed married women.

The explanatory variables which we investigated are outlined briefly in Table 3.1. The criteria used in the selection of these variables were:

- 1) their expected relation to labor force participation as predicted by labor supply theory;

- 2) their successful application in the estimation of female labor supply functions in similar studies done for other countries^{1/} and for the Philippines;^{2/} and
- 3) the availability of the data.

These candidate explanatory variables are explained in detail in the succeeding paragraphs.

Own Wage (I) - Labor supply theory presents labor force participation as a choice among three alternative uses of time: market work, home-work and leisure where the opportunity cost of time spent on leisure or home-work is the income forgone by non-participation in market production. Labor force participation is thus viewed as a function of one's wage (or potential wage). A high wage means a high "price" for non-market-time and thus a low demand for it, i.e., greater participation in the labor force. At the same time, the same high wage means a high income and thus a high demand for leisure, which is viewed as a normal good. Thus wage has both a substitution and an income effect, which have conflicting influences on labor force participation.

^{1/} For the United States, pioneering work along this line was done by Mincer (1962). Other American Studies were Cain (1966) and Bowen and Finegan (1969). For developing countries other than the Philippines there are among others, two papers presented as working paper of the ILO's World Employment Programme: Angulo and de Rodriquez (1975) and Peek (1975).

^{2/} Encarnacion (1973b).

TABLE 3.1

**CANDIDATE EXPLANATORY VARIABLES IN THE DETERMINATION
OF LABOR FORCE STATUS (LFS) AND NUMBER OF HOURS
WORKED (NHW) OF MARRIED WOMEN**
(Expected signs of the regression coefficients
are enclosed in brackets)

- I. Own Wage: substitution effect (+) and income effect
(-) net effect (+ or -)
- II. Husband's Income: expectations on husband's contri-
butions to family's market income (-)
- III. Demand for Market Production (Labor Market Conditions)
 - *A. Unemployment rate: discouraged worker
effect (-)
 - B. Nature of Available Job Opportunities
 1. Location: Urban (- for LFS), (+ for
NHW)/rural (+ for LFS), (- for NHW)
 2. Type of Household: farm (+ for LFS),
(- for NHW)/non-farm (- for LFS),
(+ for NHW)
- IV. Demand for "Home" Production
 - A. Presence of Younger Children (-)
 - B. Availability of Substitute Labor at Home (+)
- V. Household Size (+)
- **VI. Nature of Employment
 - A. Class of Worker
 - B. Industry
 - C. Occupation

*For equations on LFS only.

**For equations on NHW only.

Husband's income (II) - The household decided on the allocation of the time resources of an individual member based on its expectations on the contributions to income of other members. The husband's income is thus used as a proxy for the household's expectations on his contribution to market income. If these expectations are high then the wife's time would be more optimally allocated to home production and her labor force participation would tend to decline.

Unemployment rate (III.A) - One's decision to join the labor force may be influenced by existing demand conditions in the labor market or specifically by one's expectations on the availability of employment opportunities. This means that when the unemployment rate is high, potential labor force participants are discouraged from joining the labor force (hence the term "discouraged worker"). The unemployment rate has also been used to reflect the additional worker hypothesis^{3/} where a high unemployment rate would imply lower household incomes and hence greater participation of married women. However, this is necessary only when analysis is based on aggregated data, as for example on data for regional or area groups. When disaggregated (household) data is used, as in the present study,

^{3/} e.g., Bowen and Finegan (1969).

additional worker effects are much better represented using the husband's income.^{4/}

Nature of Job Opportunities (III.B) - In urban areas where the formal industrial and service sectors prevail, job opportunities are usually structured, taking the worker away from the home and demanding regulated working hours. This means that married women would tend to avoid participation in market production more strongly in urban than in rural areas. However, once employed they would maintain longer working hours in urban areas. Likewise, there will be contrast between the participation of married women in farm and in non-farm household. The woman belonging to a farm household would easily find opportunity to participate in production activities on the farm. At the same time, she usually keeps less regular, and shorter, working hours.^{5/}

^{4/} See Mincer (1962).

^{5/} Mangahas (1973) notes that the term urban could be misleading. Oftentimes, areas which are classified as part of the urban sector are geographically in the countryside. For the sample used in this study, the correlation between the dummy variables for location (LOC) and that for household type (HT) was - 0.56141.

Demand for "Home" Production (LV) - The woman's relative efficiency in home production makes her the logical choice in the assignment of home produced services. And of her duties at home, the most time consuming and the most urgent is the care of children at infancy and at the pre-school ages. The presence of younger children is thus expected to be a negative influence on her labor force participation. At the same time the availability of substitute labor at home (e.g., elder children, other relatives or domestic help) will relieve the mother of her responsibilities at home and free her from market participation.

Household size (V) - To a large extent, the household's need for income depends on the size of the household. A household with more members will be supported sufficiently only with higher income.

Nature of Employment (VI) - Once a woman has been employed, her hours of work may be influenced by the nature of her employment, for example, her class of worker, industry or occupation.

3.2 Data and Notations

The data used in all the reported regressions in this and the next section were taken from the 1968 NDS. Although questions have been raised as to the reliability of certain aspects of the survey^{6/} the value of this rich body of data must not be underestimated. The NDS is a nationwide sample consisting of 7,237 households. For our regressions on labor force status, our sample consisted of married women who were wives of the household heads, who belonged to households with complete records and for whom none of the variables included had entries "Not Reported". Our sample thus consisted of 5,860 women. The sample for regressions on number of hours worked was limited further to include only women who were employed and who worked during the survey week, a total of 2,182 women.

The notations for all variables used in this chapter and in the next are listed in Table 3.2. The definitions used for the various labor force concepts are the standard definitions enumerated in section 1.2 above. The regional unemployment rates used were computed from the sample and are listed in Table 3.3.

^{6/} See Encarnacion (1973b) and Raymundo (1975).

TABLE 3.2

DEFINITIONS OF VARIABLES

(Unless otherwise specified all variables refer to the wife)

CN4 = No. of children 4 years and below

CP4 = presence of children 4 years and below

Code 0 No child 4 years and below

1 With children 4 years and below

CW1 = class of worker: self-employed or employer

Code 0 not self-employed or employer

1 self-employed or employer

CW2 = class of worker: working without pay

Code 0 not working without pay

1 working without pay on family farm or business

If CW1 and CW2 both = 0, the class is wage and salary workers.

DH = presence of domestic help

Code 0 no domestic help

1 with domestic help

E = educational attainment

Code 0 no grade completed

1 grade 1-4

2 grade 5-7

3 high school 1-3

4 high school 4

5 college, no degree

6 college degree or more

EM = 0 if E < 3

= E - 2.75 if E > 3

EN = 0 if E > 3

= E - 2.75 if E < 3

TABLE 3.2

EP	=	no. of people aged 15-65 in household
HS	=	household size
HT	=	household type
		Code 0 non-farm
		1 farm
IND _x	=	industry classification
		Code 0 not in specified industry
		1 in specified industry
		where IND1 = Agriculture
		IND2 = Manufacturing
		IND3 = Commerce
		IND4 = Transportation
		If IND _x = 0 for all x, then industry is <u>services</u> .
LFS	=	labor force status
		Code 0 not in the labor force
		1 in the labor force
LOC	=	location
		Code 0 Rural
		1 Urban
NB	=	no. of children the woman has had (live births only)
NHW	=	no. of hours worked during the survey week
OCC	=	occupation classification
		Code 0 not in specified occupation
		1 in specified occupation
		where OCC1 = Professional, technical and related workers
		OCC2 = Proprietors, managers, administrators and officials

TABLE 3.2

(Cont'd)

OCC3 = Clerical, office and related workers
 OCC4 = Salesmen and related workers
 OCC5 = Craftsmen, factory operatives and workers in related occupations
 OCC6 = Service and related workers
 If OCCx = 0 for all x, then occupation is farming.

U = regional unemployment rate

UM = regional unemployment rate for males

VL = length of vocational training

Code 0 No vocational training
 1 less than 6 months
 2 6 months
 3 7-11 months
 4 one year or more

YH = husband's annual income, in thousand pesos

YHM = 0 if $YH < 1.5$

= $YH - 1.5$ if $YH > 1.5$

YHN = 0 if $YH > 1.5$

= $YH - 1.5$ if $YH < 1.5$

TABLE 3.3

REGIONAL UNEMPLOYMENT RATES
(Computed from the sample)

Region	Unemployment Rates		
	Both Sexes	Males	Females
I. Manila & Suburbs	13.5	13.0	14.3
II. Ilocos - Mt. Province	4.1	4.7	3.1
III. Cagayan Valley - Batanes	1.4	1.2	1.6
IV. Central Luzon	16.1	12.8	21.4
V. Southern Luzon & Islands	9.4	9.1	9.8
VI. Bicol	6.8	3.9	11.7
VII. Western Visayas	8.6	8.1	9.4
VIII. Eastern Visayas	7.0	7.2	6.8
IX. Northern Mindanao	8.0	6.5	10.0
X. Southern Mindanao	3.4	2.3	5.2

3.3 Regressions on Labor Force Status

Earlier work by Encarnacion (1973b) provides us with a number of estimated equations on the labor force status of working women. In this section we present Encarnacion's findings as represented in two of his estimated equations (shown in Table 3.4) and report on a new regression equation which we have estimated. Encarnacion's data is taken from the same sample used by us except that it is limited to single-family, "nuclear" type households (i.e., consisting of a couple and any unmarried children or unmarried relatives but excluding parents or grandparents of either spouse) where the wife has married only once and was under 45 years of age at the time of the survey. His sample is thus smaller than ours, consisting of 3,629 observations.

The major contribution of Encarnacion's work is the verification of the existence of threshold levels for the husband's income and the woman's educational level in the influence of these variables on the woman's decision to enter the labor force. Encarnacion's hypothesis is that below a certain threshold level, the husband's income is insufficient to sustain the household at the subsistence level. The farther below this threshold

is the husband's income, the greater is the need to supplement it with his wife's earnings.

The woman's educational level is used to represent her wage (if employed) or her potential wage (if not employed).^{7/} Given the high correlation between the educational attainment of the husband and of the wife (Encarnacion reports this to be .97), women with low educational attainment are assumed to belong to low income families.^{8/} Hence, for these women, the income effect of wage on labor force participation will predominate. Beyond a threshold level, the need for additional income becomes less critical, hence the substitution effect will prevail.

In Table 3.4, we present two of the equations estimated by Encarnacion. (At this point we must remind the reader that the dependent variable (LFFS) is a dummy variable which takes on the values 0 or 1 only. Thus the predicted value of the dependent variable should be interpreted - with reservations^{8/} as the probability that the woman will enter the labor force). The first equation

^{1/}In section 4.2 we show that educational attainment is the best variable to use in predicting the woman's earnings and can therefore serve well as a proxy for her earning capacity.

^{2/}This interpretation fails when predicted values lie outside the interval (0,1). /See Theil (1971) 7. Since our concern at present is with the signs of the regression coefficients rather than with their absolute values, we will ignore this problem in our analysis.

/Encarnacion's Regression (1)_7 presents the LFS function simply in terms of the threshold variables for the wife's educational attainment (EM, EN) and for the husband's income (YHM, YHN) and the wife's fertility (NB). The threshold values used for E and YH were 2.75 and 1.5, respectively.^{9/} As predicted, the sign of the regression coefficient for EN (low educational attainment) is negative while that for EM (high educational attainment) is positive. The coefficient of YHM is not significantly different from zero (t-value=0.90) which suggests that the additional worker effect could be inoperative in the higher income levels. The coefficient of NB is small and is only slightly significant.

In the second equation /Encarnacion's Regression (2)_7 the variables LOC and U are added. The coefficient for LOC is not significant. The discouraged worker effect is shown in the negative coefficient of U.

To test the effects of the other explanatory variables we ran a new regression adding the length of vocational training (VL), household type (HT), the number of children four years and below (CN4) and the presence of

^{9/} These values were arrived at by trial and error (to get 1.5 as the threshold value for YH) and by direct estimation (to get 2.75 as the threshold value for E). For a detailed account of their derivation see Encarnacion (1973b).

TABLE 3.4
REGRESSIONS ON LABOR FORCE STATUS (LFS)

Variable	Encarnacion's Regression (1)*	Encarnacion's Regression(2)*	New Regression
EM	0.0765 (8.30)	0.0815 (8.75)	0.11716 (12.42418)
EN	-0.0875 (-7.09)	-0.0767 (-6.14)	0.01808 (-1.90516)
VL			0.04400 (3.70370)
YHM	-0.0023 (-0.90)	-0.0020 (-0.79)	-0.00627 (-3.40761)
YHN	-0.1774 (-10.35)	-0.1538 (-8.58)	-0.11298 (-7.53702)
UM			-0.01240 (-6.92737)
LOC		-0.0038 (-0.20)	-0.03576 (2.25189)
HT			0.08041 (5.01935)
CN ₄			-0.02593 (-4.37268)
DH			0.12105 (4.27135)
U		-0.0165 (-5.99)	
NB	0.0039 (1.30)	0.0046 (1.54)	
Constant	0.217	0.354	0.41247
R ²	0.055	0.064	0.07753
S			0.4119
F			50.23914

Note: Numbers in parentheses are t-values of regression coefficients.

*From Encarnacion (1973b), Table 8, p. 29. Variable names have been changed to be consistent with ours but the definitions remain the same.

domestic help (DH). We also replaced U with UM, the regional unemployment rate of men. Surprisingly, the correlation between LFS and UM ($r_{LFS,UM} = -0.14163$) is higher than that between LFS and U ($r_{LFS,U} = -0.12636$) or that between LFS and the unemployment rate of females ($r_{LFS,UF} = -0.09621$). This means that the unemployment of males has stronger discouragement effects on married women than the unemployment of females or overall unemployment.

The new explanatory variables performed well too. Despite the presence of the education variables, vocational training came out as still significant in determining labor force status. The positive coefficient of the dummy HT means higher participation in farm than in non-farm households. As expected CN4 has a negative coefficient and DH a positive coefficient.

Because of the significant results for the individual explanatory variables, the overall performance of the new equation is slightly better than the other two. $\bar{R}^2$ s of Encarnacion's equations are .055 and .064, respectively and that for our equation is .078. This means though that much of the variation is women's decisions to enter the labor force remains unexplained in the equations.

TABLE 2.2 HJBAT

Regressions (2) and (3) were run to test

3.4 Regression on working hours

in working hours of women in different employment situations

(3) These estimated equations for the number of hours

worked by married women (NHW) are presented in Table 2.2. The first equation (1) includes the following explanatory variables: E, LOC, HT, CP4, DH, EP, and EP2. The results were satisfactory using stepwise regression. In the second equation, significant regression coefficients were obtained for variables for education were dropped and the variable E was used as a proxy for education. The results for the second equation are presented in Table 2.2. The coefficient for E is a strong substitution effect of education on the number of hours worked by the woman. The next two coefficients show that women work longer hours in urban than in rural areas (LOC) and shorter hours in farm than in non-farm household (HT). To show the effect of younger children we use CP4 which performs better than CP4 10/ Apparently the number of children less than four is the group of farmers, farm laborers and related workers. All other occupation groups work longer hours. The mere presence of a child less than four. The presence of a child less than four reduces the woman's working hours by 4.6 hours a week. When substitute labor is available at home (DH and EP) the mother's working hours are correspondingly increased and when household size is larger, the mother also works longer hours.

TABLE 3.5
REGRESSIONS ON NUMBER OF HOURS WORKED (NHW)

Variable	(1)	(2)	(3)
E	1.14997 (4.34082)	0.53948 (1.56253)	0.92700 (2.80841)
LOC	3.35173 (3.78748)	2.75100 (2.72357)	2.48734 (2.40290)
HT	-4.01381 (4.56151)	-2.34074 (-2.23971)	-1.66813 (1.56239)
CP4	-4.58661 (-5.09193)	-2.89782 (3.46265)	-3.00372 (3.50664)
DH	2.54300 (1.62208)	-1.36960 (0.76196)	-2.26262 (1.23513)
EP	0.39892 (1.27122)	0.85851 (3.59119)	0.82644 (3.37405)
HS	0.51689 (2.46584)		
CW1		-3.29909 (1.82539)	0.68091 (0.35380)
CW2		-5.74304 (4.61337)	-1.68756 (0.79756)
OCC1		3.11257 (1.25927)	
OCC2		24.71260 (9.82842)	
OCC3		9.69598 (3.01772)	
OCC4		3.46889 (1.73504)	
OCC5		0.94658 (0.48025)	
OCC6		1.41349 (0.54844)	
IND1			-5.95220 (2.86975)
IND2			-1.61900 (0.77170)
IND3			8.86059 (4.16313)
IND4			1.61299 (0.91798)
Constant	32.51979	33.65330	33.42005
R ²	0.11228	0.21168	0.17138
S	15.42455	14.54076	14.89674
F	35.35942	25.66342	23.09485

Note: Numbers in parenthesis are F-values of regression coefficients. These are equal to the squares of the t-values.

Regressions (2) and (3) were run to trace differences in working hours of women in different employment situations. In regression (2) we added a set of classificatory variables for class of worker and a second set for occupation. For class of worker, our omitted classification is the class of wage and salary workers. This means that the regression coefficient of CW1 can be interpreted as the difference in working hours between the self-employed woman and the wage earner, given the same occupation and the same values for the other explanatory variables. Similarly, the coefficient of CW2 is the difference in working hours between the unpaid family worker and the wage earner. The results show that the wage earner keeps the longest working hours, followed by the self-employed and then the unpaid family worker, other things equal.

Among the occupation groups the omitted classification is the group of farmers, farm laborers and related workers.^{11/} All other occupation groups work longer hours than this group (farmers) except craftsmen and factory

^{11/} In addition to the specified occupation groups, an eighth group, the group of manual laborers was represented. However, there were only 3 entries for this occupation group (0.14 per cent of the total sample) so we chose to ignore them. In effect, we classify them with the group of farm workers.

operatives (OCC5) and service and related workers (OCC6) whose coefficients are not significantly different from zero.

In regression (3) we have substituted the industry variables for the occupation variables. Our omitted group is the service sector. Three sectors - mining/quarrying, construction, and utilities - are not represented.^{12/} The coefficients for manufacturing (IND2) and transportation and communication (IND4) are not significant. Agricultural workers (IND1) work shorter hours and workers in commerce (IND2) longer hours than those in the service sector.

^{12/} Construction which had 3 entries and utilities with 9 entries (0.14 per cent and 0.41 per cent of the sample, respectively) were simply lumped together with the service sector. Mining and quarrying had no entry at all.

CHAPTER 4

INCOMES OF WOMEN

It is unfortunate that in contrast to the volumes of data available on the labor force and employment conditions in the labor market, national data on income from labor remains severely limited. The single major effort to collect data on income has been the NCSO's Family Income and Expenditure Survey (FIES), a series which, since 1957, has consisted of no more than four national surveys (conducted in 1957, 1961, 1965 and 1971). The value of these surveys are further limited by the fact that incomes are reported as total household income, distinguished by different sources of income, but not by the contributions to household income of individual members.

A researcher interested in studying variations in income, say between the sexes, is thus faced with a critical shortage of data and will have to content himself with one of two alternatives. The first is the

FIES data on the distribution of households by income class, classified by the sex of the household head.

This describes income levels of household in relation to the sex of the household head but does not in anyway show what proportion of family income was earned by the

head himself. Neither does it give any information on the incomes of non-heads. The second alternative data source is the report on weekly cash earnings of wage and salary workers available in the NCSO's Labor Force Surveys since May 1969. This body of data allows us to estimate the incomes of female wage and salary workers. However, it leaves us in the dark as to the incomes of the self-employed and unpaid family workers.

In this section of our report, we explore the various factors which determine the incomes of working women. We tackle first the problem of male-female wage differentials, determining the extent to which they exist and the occupational and industrial areas where they prevail. We go on to other variables of supply and demand that determine the earnings of female labor, making use of regression analysis to pick out the relevant variables. Finally, we describe the institutional factors which contribute to the final determination of incomes.

4.1 Male-Female Income and Wage Differentials

Some evidence of differences in the incomes of males and females can be derived from an analysis of the Labor Force Survey data. In Tables 4.1 and 4.2 we use

data from the May rounds to estimate average hourly wage rates for males and females in various industry and occupation groups. Data on average weekly cash earnings are available only for 1969 to 1974. The 1967 survey reports median weekly cash earnings as well as median hours worked which are presented in lieu of averages. Average hourly wages are estimated by dividing average weekly cash earnings by average hours worked per week. Wage ratios - ratios of male to female wages - are also presented.

In all industries but one (transport, storage and communication), men were earning more cash income than women (See Table 4.1). In agriculture, manufacturing and personal services other than domestic, the differences in incomes are explained by longer hours of work as well as higher hourly wages for males. In commerce and the domestic services, despite shorter working hours, men earned more than women because they received higher hourly wages. The domestic services in particular are marked by very high wage ratios which reached as high as 6.0 in 1972. In government, community, business and recreational services there were no observable sex differences in wage rates where wage ratios ranged from 0.9 to 1.1 and the higher earnings of males are attributed solely

to longer working hours. It is only in the transport, storage and communication industries that females were paid higher hourly wages than males. Thus, despite shorter working hours their incomes are higher than those of males in this industry.

Table 4.2 shows similar differentials between the wages of male and female workers in the different occupation groups. Despite the fact that occupational grouping closely reflects the productivity of labor, distinct differences are observed between the hourly wages of males and of females in all the occupation groups. Thus wage ratios are greater than one for all occupation groups, reaching as high as 5.5 in the service sector and with values slightly over 1.0 in the professional, managerial and clerical groups.

More direct evidence of wage differentiation between the sexes is presented by Tidalgo (1975) in her analysis of the Philippine wage structure. Tidalgo estimates regression equations explaining wages in terms of industrial group, occupation or skill, regional group and sex. Her data is taken from the household sample of the LFS of May 1969, including only wage and salary workers who worked during the survey week and whose weekly cash earnings did not exceed ₱90.00.

**AVERAGE HOURS WORKED PER WEEK, AVERAGE WEEKLY CASH EARNINGS AND AVERAGE HOURLY WAGES OF WAGE
AND SALARY WORKERS, MALES AND FEMALES, FOR SELECTED INDUSTRY GROUPS; MAY ROUNDS**

Year	M a l e s			F e m a l e s			Wage Ratio (7)÷(3)/(6)
	Ave. hours worked per week (1)	Ave. Weekly Cash earnings (2)	Ave. hourly Wage (3)=(2)/(1)	Ave. hours worked per week (4)	Ave. Weekly cash earnings (5)	Ave. hourly Wage (6)=(5)/(4)	
Agriculture, forestry, hunting and fishing							
1957 ^{1/}	40.8	9	.2	37.8	4	.1	2.0
1969	44.9	22	.5	37.0	13	.4	1.3
1971	45.4	37	.8	40.2	17	.4	2.0
1972	45.8	28	.6	37.1	16	.4	1.5
1973	44.6	33	.7	36.0	18	.5	1.4
1974	44.0	40	.9	36.2	27	.7	1.3
Manufacturing							
1957 ^{1/}	44.2	22	.5	40.3	10	.2	2.5
1969	47.6	44	.9	40.4	25	.6	1.5
1971	48.5	57	1.2	45.0	29	.6	2.0
1972	48.1	58	1.2	43.5	30	.7	1.7
1973	47.4	65	1.4	43.4	36	.8	1.8
1974	47.4	69	1.5	42.8	37	.9	1.7
Commerce							
1957 ^{1/}	44.6	27	.6	43.9	9	.2	3.0
1969	46.0	55	1.2	47.1	31	.7	1.7
1971	49.1	63	1.3	50.1	75	1.5	0.9
1972	47.2	63	1.3	49.7	36	.7	1.9
1973	48.2	70	1.5	49.2	47	1.0	1.5
1974	47.3	82	1.7	50.0	54	1.1	1.5

Year	Males			Females			
	Ave. hours worked per week (1)	Ave. Weekly cash earnings (2)	Ave. hourly Wage (3)=(2)/(1)	Ave. hours worked per week (4)	Ave. Weekly cash earnings (5)	Ave. hourly Wage (6)=(5)/(4)	Wage Ratio (7)=(3)/(6)
Transport, storage and communication							
1957 ^{1/}	44.6	21	.5	-	-	-	-
1969	51.4	45	.9	48.4	51	1.1	0.8
1971	52.7	52	1.0	45.7	57	1.2	0.8
1972	49.3	52	1.0	47.9	72	1.5	0.7
1973	48.2	56	1.2	46.5	65	1.4	0.9
1974	49.2	63	1.3	43.8	78	1.8	0.7
Gov't., community, business and recreational services							
1957 ^{1/}	44.2	29	.7	42.7	34	.8	0.9
1969	46.6	59	1.3	42.2	58	1.4	0.9
1971	47.9	74	1.5	45.1	67	1.5	1.0
1972	47.7	30	1.7	44.3	75	1.7	1.0
1973	47.4	82	1.7	44.3	78	1.8	0.9
1974	47.5	97	2.0	43.3	82	1.9	1.1
Domestic Services							
1957 ^{1/}	48.7	7	.1	48.8	5	.1	1.0
1969	49.6	17	.3	46.7	9	.2	1.5
1971	56.3	35	.6	60.4	11	.2	3.0
1972	53.4	63	1.2	57.5	10	.2	6.0
1973	52.3	21	.4	59.3	12	.2	2.0
1974	54.9	29	.5	58.1	14	.2	2.5

TABLE 4.1
(Cont'd)

Year	M a l e s			F e m a l e s			
	Ave. hours worked per week (1)	Ave. Weekly cash earnings (2)	Ave. hourly Wage (3)=(2)/(1)	Ave. hours worked per week (4)	Ave. Weekly cash earnings (5)	Ave. hourly Wage (6)=(5)/(4)	Wage Ratio (7)=(3)/(6)
Personal services other than domestic							
1957 ^{1/}	48.5	16	.3	39.7	9	.2	1.5
1969	48.7	40	.8	47.4	19	.4	2.0
1971	51.6	52	1.0	51.7	24	.5	2.0
1972	49.0	46	.9	50.4	25	.5	1.8
1973	49.5	50	1.0	49.3	26	.5	2.0
1974	50.0	58	1.2	49.8	28	.6	2.0

^{1/}Median hours worked and median weekly cash earnings were used.

-None reported in sample households

Source: National Sample Survey of Households (NSSH), previously called the Bureau of Census and Statistics Survey of Households (BSSH) and earlier the Philippine Statistical Survey of Households (PSSH).

AVERAGE HOURS WORKED PER WEEK, AVERAGE WEEKLY CASH EARNINGS, AVERAGE HOURLY WAGES OF WAGE
AND SALARY WORKERS, MALES AND FEMALES, FOR SELECTED OCCUPATION GROUPS; MAY ROUNDS

Year	M a l e s			F e m a l e s		
	Ave. hours worked per week (1)	Ave. Weekly cash earnings (2)	Ave. hourly Wage (3)=(2)/(1)	Ave. hours worked per week (4)	Ave. Weekly cash earnings (5)	Ave. hourly Wage (6)=(5)/(4) Wage Ratio (7)=(3)/(6)
Professional, technical and related workers						
1957-1/	43.6	39	.9	43.0	38	.9
1969	45.0	32	1.8	42.5	62	1.5
1971	46.9	99	2.1	42.6	69	1.6
1972	43.7	108	2.4	42.0	81	1.9
1973	46.3	116	2.5	44.9	85	1.9
1974	45.4	136	3.0	42.8	89	2.1
Proprietors, managers, administrators and officials						
1957-1/	44.9	69	1.5	-	-	
1969	47.6	154	3.2	*	*	
1971	46.3	139	3.0	47.1	103	2.2
1972	46.1	148	3.2	*	*	1.4
1973	47.0	197	4.2	45.1	142	3.1
1974	47.0	214	*	*		1.4
Clerical, office and related workers						
1957-1/	43.3	32	.7	43.0	27	.6
1969	45.6	58	1.3	45.1	48	1.1
1971	45.9	74	1.6	46.8	60	1.3
1972	45.8	76	1.7	45.3	63	1.4
1973	45.7	76	1.7	45.3	68	1.5
1974	46.2	95	2.1	45.4	73	1.6

TABLE 4.2

(Cont'd)

Year	M a l e s			F e m a l e s			
	Ave. hours worked per week (1)	Ave. Weekly cash earnings (2)	Ave. hourly Wage (3)=(2)/(1)	Ave. hours worked per week (4)	Ave. Weekly cash earnings (5)	Ave. hourly Wage (6)=(5)/(4)	Wage Ratio (7)=(3)/(6)
Salesmen and related workers							
1957 ^{1/}	46.5	23	.5	44.1	8	.2	2.5
1969	45.5	42	.9	47.9	18	.4	2.3
1971	49.9	56	1.1	51.0	24	.5	2.2
1972	47.9	53	1.1	50.3	22	.4	2.8
1973	48.8	59	1.2	49.9	26	.5	2.4
1974	47.7	61	1.3	51.7	29	.6	2.2
Farmers, farm laborers, fishermen and related workers							
1957 ^{1/}	40.6	9	.2	34.4	4	.1	2.0
1969	44.6	21	.5	36.9	13	.4	1.3
1971	45.1	37	.8	40.2	16	.4	2.0
1972	45.5	27	.6	37.2	16	.4	1.5
1973	44.1	31	.7	35.8	17	.5	1.4
1974	42.7	38	.9	35.9	22	.6	1.5
Craftsmen, production-process workers & related workers							
1957 ^{1/}	44.5	22	.5	40.2	9	.2	2.5
1969	47.1	38	.8	40.2	22	.5	1.6
1971	47.3	54	1.1	44.7	25	.6	1.8
1972	47.7	49	1.0	43.1	26	.6	1.7
1973	46.7	54	1.2	43.3	30	.7	1.7
1974	46.4	58	1.3	41.7	31	.7	1.9