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FERTILITY AND FEMALE EMPLOYMENT IN AN URBANIZING AREA IN SOUTHERN PHILIPPINES

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INTRODUCTION

A. APPLICABILITY AND BACKGROUND OF THE STUDY

International Women's Year of 1975 provides an opportune occasion to reflect on the achievements and failures of the past and of future possibilities for positive action to insure full equality between men and women.[1] Many concerned organizations are currently reviewing their own policies and activities in order to determine what they can do to promote more effectively the advancement of women and their full integration in national development. The question arises: What is the best strategy for integrating women in national development, particularly in an urbanizing area like Davao City?

This question is conceived in the same general framework of promoting equal opportunities for women and their possible contribution in national development. But considering that all groups of women are situated in different countries or regions, possessing different cultural traditions and at various levels of development, it is therefore imperative that programs and policies intended for the development of women should be specifically aimed to answer the needs of the country concerned.[2]

This concept has been exemplified by the three experimental projects initiated in the late sixties by the UNESCO. Essentially the aim is for the development of women through education, but the emphasis in approach to the objective differs from one country to another. "In Upper Volta, the project has concentrated on creating the basic preconditions for educating women in isolated rural areas, and on designing education, programmes which contribute to rural development. The Nepalese project has centered on training women teachers for rural primary schools as a means of increasing girls' enrollment. The project in Chile was directed to enrolling women in secondary technical education preparing them for employment in the modern sector."[3]

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[1] Women, Education, Equality: A Decade of Experiment. The Unesco Press, Paris, 1975, p. 9

[2] Ibid., p. 12.

[3] Ibid., p. 12.

Other than the UNESCO projects, in India, the Kaira Union emphasizes cooperative participation;[1] in the U.S., Small Business Administration encourages women to become entrepreneurs by making special efforts to integrate women more fully into their loans and assistance program;[2] in the Philippines, Malaysia, Indonesia, Egypt, Iran, Jamaica and other developing countries, education of women (mothers) through Family Planning and Nutrition Programs has been actively conducted.[3]

There is a growing concern and involvement for integrating women into development as demonstrated by some socio-civic organizations in Davao City. To be aware of what factors seem to encourage or hinder women to fully develop is a necessary precondition before policies are formulated and action could be initiated.

First, this study hopes to provide a descriptive analysis of some socio-economic characteristics, particularly the conflicting relationship between employment and home duties of married women. Part of it is intended to inform and provoke reflection possible for effective action, applicable to the areas included in the sample for this study and to promote opportunity for women in these areas to participate in the development program.

Secondly, this paper presents an analysis of work participation or non-participation of married women and its association with fertility and contraceptive behavior in order to develop inducements or encourage behavior patterns favorable to the engagement of family planning services.

It has been observed that a marked preference exists in the determination of program strategies in our population policy. This marked preference is for service delivery; making the availability of contraceptive service the core of almost every conceivable program strategy.[4]

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[1] Integrating Women Into Development, "The Role of Cooperatives." The World Bank Publication, August 1975, p. 9.

[2] "To Form A More Perfect Union." Justice For American Women. Report of the National Commission on the Observance of International Women's Year. U.S. Government Printing Office, Washington D.C. p. 235, 1976.

[3] Integrating Women Into Development, "Family Planning and Nutrition." p. 24.

[4] The Philippines: Priorities and Prospects for Development. "Chapter 10, Population Growth and Family Planning" pp. 242-254. (Report of a mission sent to the Philippine by the World Bank). The World Bank, Washington D.C. March 1977.

The importance, much less the effectivity or validity of this strategy preference is not, however being called into question. We note this preference only to better focus on what some planners are beginning to become more aware of: the need to complement service delivery with inducements for the population to avail themselves of these services. Such a complementation, it is felt, would lead to strategies with better-desired balance.

Such factors that would induce people to take advantage of contraceptive services are generally socio-economic in nature. Where one is interested in developing a strategy for modifying marital fertility, for example, one should not only plan for the delivery of contraceptive services; one should also engage in an analysis of the specific characteristics of married women in order to develop inducements or encourage behavior patterns favorable to the engagement of these services.

This study was originally whetted by Hackenberg, whose study of urban households in Davao City tended to show that families with higher socio-economic mobility had markedly lower fertility rates.[1] More significantly the same study tended to show that socio-economic mobility was, more often than not, pegged on increased household income owing to the employment of the female spouse.[2]

The theoretical basis for this correlation between female employment and desire for smaller families lies in the development of satisfaction alternatives. That is to say, satisfaction alternatives other than children and in such forms as longer time spent for income generating activities, increased variety in recreational activities and increased opportunities for creative work. It is averred that employment provides not only these alternatives but, more directly, the means to these alternatives in the form of financial renumeration.

The need to verify this correlation cannot be overstated. Demographers, planners and policy makers the world over are concerned with this question for its obvious implications on the development of appropriate population policy.

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[1] Robert A. Hackenberg, "Fallout From the Poverty Explosion:" Economic and Demographic Trends in Davao City, 1972-1974. Monograph No. 2 Davao Action Information Center, Davao City. 1974, pp. 131-137.

[2] Ibid.

For developing countries such as ours the need is even more acute as we begin to note the increasing absorption of women into the active labor market. Rañoa in a labor force analysis report suggests that more and more women are getting out of traditional home-based or casual employment and becoming more involved in active labor participation for cash income.[1] He notes very markedly that the bulk of this increase in active female labor between 1958-1968 was situated in women belonging to the 25-44 age bracket.[2]

It is felt that because of this development an appropriate population policy/program/strategy should be developed as soon as is practicable. It is hoped that this study on the fertility behavior of working and non-working women in some sample areas of Davao City can be a positive contribution to that effort.

B. RELATIONSHIP TO EXISTING RESEARCH AND LITERATURE

The core of the problem at hand may be aptly summarized as a paradoxical question: "Do women who work have fewer children because they work or do they work because they have fewer children?"[3] Blake and Davis were early proponents of the need to understand the relationship between labor force participation and fertility behavior. Both were of the opinion that increased female labor force participation would be a viable method to lower fertility, particularly in the developing countries.[4]

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[1] William Stinner, "The Child-bearing Patterns of Young Filipino Women." A Demographic Path To Modernity: Patterns of Early Transition in the Philippines, Wilhelm Flieger and Peter Smith (eds.), Quezon City: University of the Philippines Press, 1975, p. 27.

[2] Ibid., p. 27.

[3] Asian Population Studies Series No. 11. "Population Aspects of Social Development," Bangkok, Thailand, January 1972, p. 62.

[4] Sidney Goldstein, Alice Goldstein and Penporn Tirasawat, "The Influence of Labor Force Participation and Education on Fertility in Thailand," Research Report No. 9, (Bangkok, Institute of Population Studies, Chulalongkorn University 1972, pp. 1-2.

Weller, Collver and Langlois corroborated each other's findings and emerged with the thesis that incompatibility of the type of work engaged in and the motherhood role resulted in lower fertility.[1] The former study was conducted in Puerto Rico while the latter was a cross-national Latin American study.

Jaffe and Azumi, also working in Puerto Rico, found women engaged in cottage industries with about the same fertility rates as those who were totally non-working; those women found working in industry or outside the home, however, had lower fertility rates.[2]

A later study by Gendell and Kreitner in Guatemala City was to offer the following findings: (a) that the average number of children of women not economically active was double compared to economically active ones and (b) that of the economically active women surveyed, those employed as household help had an average cumulative fertility fifty percent higher than that of the others.[3]

The studies above-cited tend to corroborate the assumption that type and context of female employment are prime factors in determining the correlation between active labor force participation and fertility. Other studies, however, note that the operation of both roles conflict (viz., the conflict/non-conflict with the motherhood role), and that improved living standards are equally significant factors in the discernment of regional differentials.

Concepcion for one, notes the following: (a) that the fertility of non-working women in Metro Manila was lower than that of working women in other urban as well as rural areas and (b) that the lowest fertility rate

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[1] D. C. Dubey, A. Bardhan, S. Gray, "Fertility Behavior of Working and Non-Working Women." National Institute of Family Planning, Monograph Series No. 24, Green Park, New Delhi, March 1975, pp. 3-4.

[2] A. J. Jaffe and K. Azumi, "The Birth Rate and Cottage Industries in Underdeveloped Countries." Economic Development and Cultural Change, Vol. 9, October 1960.

[3] D. C. Dubey et. al, Op. cit., p. 5.

was registered among working women in Metro Manila.[1] Thus it suggests that "economic activity" only assumes importance as a contributing factor to fertility differences in the "truly urban" places.[2]

Indeed, as has been long noted, the results of empirical research in any field of human science often vary.

Of no significant relatiohsip are studies by: (a) Stafilios - Rothchild, who in their study of Athenian women conclude that "whether a woman works full time, part time, never in her life, before marriage or child birth, these have no significant influence upon childbearing;"[3] (b) Sovani and Dandekar working in the Nasik and Kolaba areas in India report insignificant or "no-relation" results between work role and fertility and no evidence was found that female spouse employment is associated with fertility in both the rural and urban setting;[4] (c) Driver, operating out of Central India, heavily corroborates Sovani and Dandekar and reports that female employees were more fertile than those not working for pay; finally, (d) Murray Gendell concludes that these bits of evidence, with their limitations of scope and methodology, do not provide a secure basis for ascertaining the nature of relationship between economic activity and maternal responsibility in India.[5]

D.C. Dubey at al., made two broad generalizations on the relationship between female employment and fertility after an extensive review of related studies was carried out. The first generalization emphasized that in highly developed countries there almost always is an inverse relationship between female employment status and fertility. In less developed countries, such an inverse relatiohship may not always be present. Confining their attention

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[1]Mercedes B. Concepcion, W. Flieger, E. Pascual and W. Stinner, "The Childbearing Patterns of Young Filipino Women," A Demographic Path To Modernity: Pattern of Early Transition in the Philippines, W. Flieger and P. Smith (eds.), (Quezon City: University of the Philippines Press 1975), p. 140.

[2]Ibid., p. 140.

[3]D.C. Dubey et al., Op. cit., p. 4.

[4]"Interrelation Between Population and Manpower Problems," Asian Population Studies Series No. 7. (Bangkok, Thailand: January 1971), p. 58.

[5]Ibid.

to the less developed countries, the probability of observing an inverse relation is more likely in urban than in rural areas. Secondly, there is differential fertility by the setting of work and by occupation. If the wife works at home, she is likely to have fertility virtually identical to that of women not in the labor force, and if she works away from home, she is likely to have lower fertility. Moreover, women in agriculture, domestic service or home handicrafts tend to have fertility identical to that of non-workers, whereas women in white collar, non-manual occupations tend to have significantly lower fertility.[1]

The authors further stated that under the second generalization, "education with some other factors such as the mother-worker role are operating in influencing fertility behavior of women. Presumably where there is role incompatibility there will be a negative association between female employment participation and fertility. In the reverse situation fertility differences between working and non-working women will be negligible."[2]

We may safely assume therefore, that the disparities noted could very well have been the result of differences in study design, sources of data, or of various measurement instruments utilized in these studies. Mitchel in this regard significantly asserts that "both labor force participation and fertility are deceptively complex concepts possessing many dimensions that should be measured separately."[3]

Great care has, in fact and as far as practicable, been taken in the preparation of the basic research design and methodology. This extreme care in measurement may not, however, always be possible and certain dimensions are bound to be more emphasized, others less emphasized. It is also highly probable that where the difference in design, data sources and measurements have not been significant there still lies the possibility that the relationship between female active labor force participation and fertility varies

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[1] Ibid., p.6

[2] Ibid., p. 7

[3] D.C. Dubey et al., Op. cit., p. 6.

greatly from one social context to another. If this is so, a deeper examination of these contexts can give us greater insight into these relationships.[1]

C. THE PROBLEM

This study has two purposes. First, to determine whether female employment is inversely associated with fertility. Second, to find out if female employment participation is related to earlier, longer and more continuous use of contraceptive methods. Female employment in this particular problem includes two variables: (1) length of marital employment, and (2) recurrent type of marital employment.

The problem is further presented in a framework (Fig. 1) relating the two female employment variables with fertility, and contraceptive use with employment participation and non-participation. The problem will be tested through five questions which are immediately deducible from the framework presented.

Q. (1) Is recurrent type of marital employment associated with fertility? Do currently married women who have been functioning as professionals or who have worked as clerks in offices exhibit lower fertility than women who have other occupational status and women who have never worked?

Q. (2) Is longer duration in full time marital employment for cash income directly associated with lower fertility?

Q. (3) Do women who have experienced work for cash income while married tend to have longer duration of contraceptive use compared to women who have never worked since date of first marriage?

Q. (4) Do women who have experienced work for cash income while married, tend to be more continuous in contraceptive use compared to women who have never worked?

Q. (5) Do women who have experienced work while married tend to start earlier in using contraceptive methods compared to women who have never worked?

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[1] Ibid.

D. DEFINITION OF TERMS USED:

1. Female Employment Variables:

A. Recurrent type of employment: There are four types of employment classified after listing all kinds of employment experienced by the respondents of this study. These are: (a) Business and Sales Activities, (b) Professional and Clerical Types, (c) Personal and Domestic Services, (d) others.

Business and Sales Employment Types includes: proprietress of big or small commercial establishments, sales consultants, sales representatives, travelling businesswoman, proprietress of sari-sari store, carenderia, pig and poultry dealers, market vendors, peddlers, sales ladies of big department stores, buy and sell (without store) done at home or neighbor's place and management of boarding houses.

Professional and Clerical types: Office administrative officers, supervisors, accountants, physicians, nurses, pharmacists, medical technologists, bank tellers, insurance agents, data analysts, cashiers, teachers, executive secretaries, journalists and media workers, court interpreters, nursing aides, attendants, x-ray technologists and others who are classified as government employees.

Personal and Domestic Services includes: cosmetologists or beauticians having or not having their own beauty parlors, dressmakers, photographers, waitresses, masseurs, movie ushers, manicurists, bakers, security and policewomen, street cleaners, candy makers, painters, bet-takers, laundrywomen, housemaids, sack sewers, cooks of restaurants and residents, baby sitters or "yaya," mill helpers and old people's assistants.

It was observed that shift of occupations among the respondents is common, thus the most recurrent type was coded. For the few who have experienced different types of employment with equal frequencies, the latest type was coded. In cases where only two different types of employment were experienced by the respondent, the latest/current type was also coded.

B. Duration of Employment: It is the sum of the number of years or length of full time employment for cash income in each occupation since date of first marriage. Respondents who had less than six months of full time employment were coded "never employed," while those whose work experience

2. Use of Contraceptive Methods:

A. Characteristics of Contraceptive Users:

1. Continuous users are those who continually or regularly use one or two or more methods since date of first use, until date of interview.

2. Irregular users are those who used one or two or more contraceptive methods for a time, then temporarily stopped, and who were again using the same or other methods during the date of interview.

3. Drop-outs are those who have used one or two or more methods for a time, then permanently stopped and were classified as not currently using during the date of interview.

B. Duration of contraceptive use is measured by the total number of months in which respondents have been using or have used one or two or more contraceptive methods.

3. Currently Married Women - includes all married women who were not classified as widowed or separated at the time of the interview.

4. Women Who Have Worked: (1) Women who have obtained cash income from extra family sources either from work at home, in their compounds within the immediate neighborhood or from work away from home or their immediate neighborhoods. (2) Women who have spent seven hours or more each day doing such work.

5. Women Who Have Never Worked - includes all women who have never experienced full time work for cash income since date of first marriage until date of interview. (2) Women who have worked for less than six months since date of first marriage.

6. Fertility - Total number of children ever born.

7. Age of Women - Age as of last birthday.

8. Marriage Duration - Total number of years married since date of first marriage up to date of interview.

E. METHODOLOGY:

The frame of this study is the city-wide sample survey of Davao City conducted in 1976 by the Davao Action Information Center, a research outfit

which is headed by Dr. Robert A. Hackenberg.[1] The data gathered in 1976 represent a total sample of 3,474 households.

From the 1976 city-wide sample survey, a sub-sample of 638 respondents, representing approximately a 15% sample of the population of women who are currently married and who are within the age group 25-45+ years old, was drawn randomly. The use of disproportionate stratified random sampling was employed. The stratum of women who have experienced full time marital employment for cash income has relatively fewer cases compared to those who have never worked. Disproportionate stratified random sampling is assumed to give a reasonable number of cases for women who have experienced work, to serve as an adequate basis for the problem analysis, which is that of the working population but not particularly the total population.

The sample was drawn by means of a table of random numbers. The research design adopted was descriptive and the process of collecting the data was through personal interview using structured interview schedules. The interviewers who were involved in this study were some of the staff of Mrs. Beverly Hackenberg and students of Mrs. Alma Junsay.

The completed interview schedules were edited and coded by three RIMCU staff who worked part time in this project. After a coding instruction frame was thoroughly done, the coded data was processed by the IMB machines of the Research Institute for Mindanao Culture, Xavier University, Cagayan de Oro City.

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[1]Robert A. Hackenberg and Beverly A. Hackenberg, Preliminary Report on "Socio-cultural Context of Fertility Decline In a Developing City:" Davao Philippines. DRPF, Davao City, p. 4 (1976).

PRESENTATION AND ANALYSIS OF DATA

Entrance To Marital Employment:

Work experience while married or marital employment is the particular interest of this study, although knowing the date of entrance to full time work for cash income of the sample is equally important. Table I indicates that in age bracket 25-34 the majority (56.7%) of the respondents participated in full time work for cash income between 1970-1977 - 42 or 37.8% between 1960-1969 and 6 out of 111 before 1960. In age group 35-45 and over, the highest percentage of work participation for cash income is noted within the years 1960-1969, 51.2%; 30.2% in 1970-1977 and the least percentage, 18.5% started working for cash income before 1960. Thus the majority of the respondents in the younger age group (25-34) participated in full time work for cash income between 1970-1977 and it was between the years 1960-1969 for the older age group (35-45 and over).

Mean Number of Children Ever Born By Marital Work Experience

The data in Table 2 shows that the mean number of children ever born per woman is slightly lower for those who have worked for at least one year (4.76) than those who have never worked for cash income while married (4.90). Such a relationship is maintained particularly in the 25-44 age groups. The reverse is true for women in age group 45 and over where the mean number of children ever born to women who have worked while married is only slightly higher than that of women who have not worked (6.34 to 6.12).

It is not, therefore possible to attribute employment for cash income as a significant factor for fertility differences on the basis of the current data. Aside from saying that the sample is relatively small, causal relationship between fertility and employment for pay among women could be in either direction. We may assume three directions in establishing the relationship: (1) "that women work for pay because they have fewer children, and thus are free to do so, (2) that work for pay encourages fewer children and (3) such a relationship runs in both directions with sufficient considerations on some intervening socio-economic variables emphasizing costs and benefits of letting mothers look after their children thus giving up

additional income."[1]

Age At First Marriage. Age of entry into marriage is an important determinant of a woman's total fertility. It is assumed that the younger the age at first marriage, the longer is the woman's exposure to the risk of child-bearing and actual reproductive period.

Table 3 presents the mean number of children ever born by the age at first marriage and duration of marriage for currently married women. An inverse association between mean age at first marriage and mean number of children ever born is evident. The lower the mean age at first marriage, the higher is the mean number of children ever born for women classified by specific marriage duration and current age. For age 25-34 in the current sample, women who had their first marriage before their twentieth birthday had at the time of the study, borne almost twice as many children on the average, as compared to women who postponed marriage until they were over twenty years old. It is observed also that the mean age at first marriage slightly increases among women classified in the lower age group, 25-34.

Recent trends toward later marriage have been observed in some Asian countries.[2] Dr. R. Hackenberg's findings support this observation as evidenced by the upper class women who have the highest expressed desire for a larger number of children. He says that this is largely to be explained in terms of the later age at first marriage, later age at child birth and consequently, later age at which desired family size can be attained.[3] Furthermore the comparison of age-specific rates for 1974 and 1978 city-wide sample survey confirms that Davao's women are making progress towards a "modern" pattern of family formation, early childbearing and later reproduction are both being limited. From this sample an increase age at first marriage is reflected particularly in age group 25-34. A longitudinal study of this age group 25-34 may demonstrate whether or not modern family formation is taking place among women included in this sample.

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[1] Kingsley Davis and Judith Blake, Social Structure and Fertility: An Analytical Framework. Economic Development and Cultural Change 4:211-235, 1956.

[2] Ibid., p. 228.

[3] Robert A. Hackenberg and Beverly A. Hackenberg, Preliminary Report On Socio-Cultural Context of Fertility Decline In A Developing City (Davao, Philippines, DRPF, 1976) p. 4.

Table 1 - Distribution of Respondents According to Date of Entrance to Work For Cash Income Since Date of First Marriage by Current Age

	25-34 Age Group			Total
	Before 1960	1960-1969	1970-1977	
Number of Respondents	6	42	63	111
In Percent	5.4%	37.8%	56.8%	100.0%

	35-45+ Age Group			Total
	Before 1960	1960-1969	1970-1977	
Number of Respondents	46	137	84	267
In Percent	17.43%	51.37%	31.19%	99.99%

Table 2 - Mean Number of Children Ever Born By Marital Work Experience And By Current Age Of The Female Spouse

	All Ages			25-34 Years Old			35-44 Years Old			45 and Over		
	No. of Women	Total CEB	CEB	No. of Women	Total CEB	CEB	No. of Women	Total CEB	CEB	No. of Women	Total CEB	CEB
Have never worked while married	260	1275	4.90	74	272	3.67	154	807	5.24	32	196	6.12
Have worked for at least one year while married	378	1801	4.76	111	379	3.41	218	1111	5.09	49	311	6.35

Table 3 - Mean Number Of Children Ever Born By Duration Of Marriage, Mean Age At First Marriage And Current Age Of The Respondents

Duration of Marriage In Years	Mean Age At First Marriage	Total Number of Respondents	Total Number of Children Ever Born	Mean Number of CEB
Age group 25-34				
4 - 5	23.21	23	56	2.43
6 - 10	21.72	113	378	3.34
11 - 15	19.41	42	180	4.28
16 - 20+	18.23	7	37	5.28
		185	651	
Age group 35-44				
4 - 5		(51)	(130)	2.54
6 - 10	19.21	71	278	3.91
11 - 15	19.16	104	506	4.87
16 - 20+	17.57	146	874	5.98
		372	1788	
Age group 45 and over				
4 - 5		(1)	(0)	(0)
6 - 10	19.0	8	36	4.50
11 - 15	17.47	14	59	4.21
16 - 20+	16.43	59	412	7.00
		81	508	

In this study a series of questions on marital history were asked of currently married women respondents. Responses to a question on the length of marriage, since the date of first marriage up to the date of interview were used to calculate marriage duration. Table 3 presents duration of marriage for currently married women by mean age at first marriage and mean number of children ever born. As can be seen in all age groups, there is a clear relationship between marriage duration and average number of children ever born. As would be expected fertility is highest for women who have been married for more than fifteen years and lowest for women married for at most five years. Conversely, duration of marriage is associated with age at first marriage. Currently married women who have been married for a longer number of years indicated a relatively younger mean age at first marriage. The difference in mean age at first marriage per duration of marriage is observable from the table. The present sample suggests that fertility is affected by age at first marriage and duration of marriage. The difference in the number of children ever born varies according to current age of women.

The following tables show some socio-economic characteristics of the currently married women included in this sample.

Education of Women

Table 4 reveals that most respondents belonging to the younger age group have had some/completed high school education while among the older age group, majority have had some/completed elementary education. A lower proportion of the respondents in all age groups have some/completed college education.

In reference to marital work participation, the overall data indicates that a slightly higher percentage of the respondents who have had some/completed high school education have earned cash income from full time work while married, while an absence of marital work experience is more evident among the respondents who have only had some/completed elementary education. As expected, the same trend is more apparent for those who had some/completed college education. There is consistently a higher percentage of women who have experienced work for pay than those who have never worked among the respondents who spent some years in college.

Table 4 - Distribution Of Respondents According To Highest Grade Completed By Employment Participation And Current Age

Highest Grade Completed	Have Never Worked		Have Worked		Total	
	No. of Respondents	Percent	No. of Respondents	Percent	No. of Respondents	Percent
25-34 years old						
- have never attended school	0	0	0	0		
- some/completed elementary education	31	60.78	20	39.21	51	99.99
- some/completed high school	28	36.36	49	63.64	77	100.00
- some/completed college and post graduate	15	28.84	37	71.15	52	99.99
- others	0	0	5	100.00	5	100.00
Total	74		111		185	
35-44 years old						
- have never attended school	5	83.33	1	16.67	6	100.00
- some/completed elementary education	76	47.80	83	52.20	159	100.00
- some/completed high school	51	38.93	80	61.07	131	100.00
- some/completed college and post graduate	21	28.77	52	71.23	73	100.00
- others	1	33.33	2	66.67	3	100.00
Total	154		218		372	
45 and over						
- have never attended school	2	33.33	4	66.67	6	100.00
- some/completed elementary education	18	52.94	16	47.06	34	100.00
- some/completed high school	10	31.25	22	68.75	32	100.00
- some/completed college and post graduate	3	37.50	5	62.50	8	100.00
- others	0	0	0	0	0	
Total	32				80	

Monthly Household Income

It appears from Table 5 that in the age group 25-34, the highest number of respondents (65 out of 185 or 35.13%) belong to the less than ₱100-354 monthly income bracket, 58 or 31.35% from the ₱355-654, followed by 37 or 20.00% from the ₱655-954 bracket and the least number 25, from the ₱1,000 or over monthly income bracket.

In age group 35-44, out of 372 respondents 36.02% are found in the ₱355-654 income group, 127 or 34.13% in the less than ₱100-354, 91 or 24.46% in the ₱655-954 bracket and the least, 20 or 5.37% in the ₱1,000 and over monthly income group.

Age group 45 and over presents a picture similar to age group 35-44. Here, the majority of the 81 respondents (32 or 39.51%) fall within the ₱355-654 monthly income group, 29.63% have a monthly income of less than ₱100-354, 25.92% have ₱655-954 and 4.9% have a monthly income of ₱1,000 and over.

Female Employment and Fertility Behavior

This study primarily deals with an analysis of the relationship between two female employment variables and fertility, and does not go into a real "in-depth" analysis on causation of relationship. Despite its restricted scope, it remains of considerable interest to know that the overall data reveal no significant relationship between duration of employment and recurrent type of marital employment, to fertility. It is a consistent feature in all age groups that there are no significant differences in the mean number of children ever born. (Table 6 and Table 7). Tables 6 and 7 further reflect that there is no discernable pattern emerging from length/duration of employment and recurrent type of marital employment of fertility. Perhaps the only observable tendency is that women in the professional and clerical types of work have a lower number of children than women belonging to the other types of employment. Duration of marriage and number of children has a stronger association with fertility than length and type of marital employment.

In most findings involving a relatively small sample size like the present one, more questions are raised than answered. This paper attempts to present one associated female employment variable which seems to be an important factor to be considered in relating female employment to fertility.

Table 5 - Distribution Of Respondents According To Total Monthly Household Income By Current Age Of Respondents

Total Household Income/Monthly	Total Number Of Respondents	Percent
Age group 25-34		
₱ Less than 100-354	65	35.13%
₱ 355-654	58	31.35%
655-954	37	20.00%
over 1,000	25	13.51%
Total	185	99.99%
Age group 35-44		
₱ Less than 100-354	127	34.13%
₱ 355-654	134	36.02%
655-954	91	24.46%
over 1,000	20	5.37%
Total	372	99.98%
Age group 45+		
₱ Less than 100-354	24	29.63%
₱ 355-654	32	39.51%
655-954	21	25.92%
over 1,000	4	4.94%
Total	81	100.00%

Table 6 - Mean Number Of Children Ever Born By Length Of Marital Employment, Duration Of Marriage And Current Age

Length of Employment (in Years)	Duration of Marriage (in years)		
	1-5	6-10	11-15+
25-34 Age Group			
00	2.75 (8)	3.73 (48)	4.55 (18)
1-5	3.25 (12)	3.39 (36)	4.51 (21)
6-10 and over	0	2.93 (28)	4.12 (14)
35-44 Age Group			
00	2.18 (22)	3.39 (21)	5.75 (111)
1-5	2.83 (29)	4.64 (34)	5.19 (84)
6-10 and over	0	3.12 (16)	5.58 (55)
45+ Age Group			
00	0	3.4 (10)	7.16 (31)
1-5	0	4.6 (7)	6.29 (12)
6-10 and over	0	4.5 (4)	5.59 (17)

Table 7 - Mean Number of Children Ever Born By Recurrent Type of Marital Employment, Duration of Marriage and Current Age

Recurrent Type of Marital Employment	Duration of Marriage		
	1-5	6-10	11-15+
25-34 Age Group			
Never Worked	2.71 (7)	3.73 (48)	4.55 (19)
Business and Sales Types	2.0 (3)	3.10 (24)	5.76 (15)
Domestic and Personal Services	3.50 (4)	3.37 (30)	3.13 (15)
Professional & Clerical Types	2.20 (5)	2.90 (10)	1.75 (4)
Others	2.00 (1)	(0)	(0)
35-44 Age Group			
Never Worked	1.18 (22)	3.39 (21)	5.75 (111)
Business and Sales Types	3.0 (16)	3.87 (23)	5.22 (79)
Domestic and Personal Services	2.50 (8)	3.28 (20)	5.11 (37)
Professional & Clerical Types	1.80 (5)	3.04 (7)	4.20 (20)
Others	0	0	4.66 (3)
45+ Age Group			
Never Worked	0	3.4 (10)	6.25 (31)
Business and Sales Types	0	5.44 (9)	7.47 (15)
Domestic and Personal Services	0	6.0 (2)	4.5 (2)
Professional and Clerical Types	0	0	7.0 (8)
Others	0	0	7.0 (4)

Table 8 - Reasons For Temporary or Permanent Discontinuance of Employment Participation

25 - 45+ AGE GROUP		
Home Child Care Necessary	166	72.17%
Higher-Paying Job Sought	119	51.73%
Another Job Sought	23	10.0 %
Health Reasons	74	32.17%
Husbands' Income Sufficient	5	2.17%
Husband Disapproves	34	14.78%
Others	9	3.91%

This associated variable is the "on and off" ordiscontinued pattern of employment participation among working, married women. It seems that "on and off" work participation poses both complexity in measuring length of female employment and maybe presence/absence of a meaningful effect of marital work experience on fertility.

The sample of this study indicated that in all age groups, "on and off" or discontinued employment participation among women is more pronounced than continuous employment. The reasons why working women in this sample left work either temporarily or permanently were sought. Table 8 shows that majority (72.17%) of the respondents disclosed that they stopped working for cash income because child care demands their presence at home. As explained by some respondents, "it is difficult to work and at the same time be thinking of the children who are left at home." This supports the popular notion that working mothers are commonly torn between two highly competitive roles, that of taking care of the growing children and that of engaging in income-producing activities. In addition, health reasons and disapproval of husbands for women's employment are in a way related to child care. Some husbands disapproved of their wives' employment, particularly if it involved working away from home, because no one would look after the children. Yearly pregnancy also deters women from coping with two roles, that of a mother and that of a worker. Physically, this situation would be detrimental to her.

Thus it might be possible that duration of employment among married women may not have a meaningful effect on fertility if the pattern of employment participation is characterized as "on and off" and if such discontinued employment is highly associated with the demand of child care.

Sidney Goldstein, Alice Goldstein and Penporn Tirasawat characterized three situations showing why high fertility levels exist among older employed women.[1] 1) Higher cumulative fertility may force women to work to increase the family income and/or food supply in order to meet the greater consumption needs of the larger household size. 2) The availability in the household of older children who are able to care for the younger children may permit a higher degree of labor force participation by these mothers. Such an interpretation would be consistent with Weller's thesis that the availability of parental

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[1]Sidney Goldstein, Alice Goldstein and Penporn Tirasawat, "The Influence of Labor Force Participation and Education On Fertility in Thailand." Population Studies No. 26, 1972 pp. 419-436.

surrogates serves as an intermediary variable to facilitate labor force participation of women in childbearing ages. 3) For women aged 45 and over, the end of childbearing may facilitate labor force participation.

The first and second situations reveal that the number of children they "already" have and the availability of older siblings to care for the younger ones, make and enable mothers to work for additional income for the family. Furthermore, these situations seem to view fertility both as a cause and effect for married women to become economically active.

The sample of this study finds presence of children at home as a hindrance to continuous work participation for cash income because of the unavailability of parental surrogates (Table 10). The absence of caretakers for the children, in addition to the need for another job with higher income, (Table 9) is one of the main reasons why a shift of occupations, specifically from work away from home to work near home, characterized a significant minority of married women who have worked. This was noted in the case of some respondents (38.6%) who were previously working in offices as clerks, or as sales girls, waitresses, cashiers in big department stores, where their places of work were away from home and time of work was structured; they are now engaged in buying and selling goods, tending sari-sari stores, peddling or not working for pay at all. They disclosed that being self-employed allowed them to engage in income-producing activities and in child care simultaneously, since place of work is at or near home, or in the case of vegetables or fish peddlers, the nature of their work allowed them to take their children with them while selling. As cited by some respondents they would rather have no job than have a low-paying job and be forced to pay for house helpers to look after their children.

"From the city-wide sample surveys conducted in 1972, 1974 and 1976, the Davao Action Information Center has presented the following observations concerning women's activities."[1]

a) Of women at work, 56% proved to be engaged in sales activities and 43% were in traditional bazaar market roles (stallkeepers, vendors, street peddlers, and buy and sell).

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[1]Robert A. Hackenberg, "Fallout From the Poverty Explosion," Economic and Demographic Trends In Davao City, 1972-1974. Monograph No. 2, DAIC, Davao City, 1975, pp. 143-148.

Table 9 - Arrangements For The Care Of Children (Pre-School Age) When The Respondents Are At Work

25-45+ AGE GROUP	Total No. of Respondents	In Percent
Hired Non-Relatives	33	8.73%
Hired Relatives	18	4.76%
Relatives Not Hired	47	12.43%
Children Go Along With Mother To Working Place	104	27.51%
None	156	41.26%
Others	20	5.29%
Total	378	99.98%

b) The nature of the economic activities combined within the informal sector seems to be uniquely patterned to encourage maximum participation by married women as the following points will illustrate:

1. The place of work may be located within or adjacent to the residence, requiring no special arrangements for child care.

2. There are no fixed hours for performance of tasks so participation may be arranged to allow for other commitments, (housekeeping, child-tending, marketing, etc.).

3. There are no barriers against the entry of older women into active economic life and no penalties invoked against periodic absence from the labor force for child-bearing.

c) Women market traders receive relatively high income. While there are substantial class differences in earnings, the mean income received by women bazaar workers was 78% of that for all women workers. Curiously, the proportion of the average income received by female employees is the same for women bazaar traders at each class level.

d) There are no formal qualifications in terms of education or experience for entry into the work force in the informal sector. Women engaged in the bazaar trade are undereducated. Analysis of the female labor force published by Hackenberg confirms the fact that the jobs sought by married women are confined to the sales and services and clerical-professional

former in size, but at all three class levels the education of saleswomen in the bazaar market falls below the average for their group. The education of women in the bazaar economy is 2.26 years below the average of all other employed women.

Contraceptive Use:

The differentials in the number of children ever born by occupation has been attributed to various causes. Differential acceptance of contraception by women in different occupational statuses is one of the theoretically most important factors. Some studies, in both developing and developed countries, have shown that family limitation is on the increase and it is working women who are in the vanguard of rural acceptors. Goldstein et. al. further stressed that in Thailand heavier use of contraception was exhibited by working women.[1]

Marital employment participation or non-participation is used as reference to compare differential contraception in this study. Particularly, it uses duration of contraceptive use and continuity or discontinuity of family planning practice between women who have worked and those who have never worked since date of first marriage.

A higher proportion of the total sample of this study disclosed that they had used at least one contraceptive method. But even if a greater percentage of respondents from both categories (women who have and have not experienced work for pay) are contraceptive method acceptors, it can be observed (Table 10) that the majority of these acceptors have an irregular pattern of contraceptive use and are therefore classified as irregular users.

There are three characteristic patterns of contraceptive use observed from the sample, 1) continuous use which characterized women acceptors who have regularly or continually used any one or two or more methods, from the date they started using it until the date of interview, 2) irregular use which characterized women who used any one or two or more methods for a while or quite a time, and who temporarily stopped using these for a certain period of time but who, during the date of interview were currently using at least one of these contraceptive methods, lastly, 3) "drop-out," those women who have used any one or two or more methods for a period of time, then permanently stopped using these contraceptive methods and were therefore identified

as not currently using on the date of interview. Another major cateogry are women who are identified as non-acceptors, or those women who have never used any contraceptive method. The percentage of women in each category varies slightly according to employment participation and more specifically according to current age (Table 10).

In the case of women who have worked and who belong to age group 25-34, 69.72% are acceptors. But acceptance and the practice of birth control methods is not permanent or continuous. About one fourth (25.69%) have dropped out and almost the same percentage (23.85%) are irregular users of contraceptive methods. Only one fifth (20.18%) are continuous users. For women who have never worked, the majority (62.14%) are identified as acceptors but among these acceptors only 18.91% are continuous users and the majority (35.13%) are irregular users. It is interesting to note, however, that the percentage of acceptors who have dropped out among those who have never worked is lower (8.10%) compared to women who have worked, (25.69%).

The same pattern of contraceptive use is observable in the 35-44 age bracket. Its outstanding feature is a distinct higher proportion of irregular contraceptive users in both groups of women. There is however a slightly higher percentage of women who have never used any contraceptive method among respondents who have never experienced work for cash income (40.90%) compared to women who have worked, (34.86).

It is shown in this table that the tendency among the majority of the acceptors is towards irregular use of contraceptive methods, regardless of whether the respondents have worked or have not worked at all. This trend is also observable among respondents in the 45+ age group. A limited sample size however may not present a good comparison.

In all ages, the irregular users were usually the shifters of methods and those who conceived while using contraception. There were two optimistic conclusions cited by Hackenberg in his preliminary report on Socio-cultural Context of Fertility Decline In a Developing City, regarding method shift among the acceptors. One is the "major increase in reliance on tubal ligation as a means of family limitation, and two, an equally strong inclination toward the most effective methods: IUD and ligation."[1]

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[1]Hackenberg, Op. Cit.

Table 10 - Distribution of Respondents According to Characteristics of Contraceptive Use by Employment Participation/Non and Current Age

	Have Worked		Have Never Worked	
	Total No. of Respondents	In Percent	Total No. of Respondents	In Percent
25-34 Years Old				
Never Used	33	30.27	28	37.83
Dropped Out	28	25.69	6	8.10
Irregular Users	26	23.85	26	35.13
Continuous Users	22	20.18	14	18.91
Total	109	99.99%	74	99.97%
35-44 Years Old				
Never Used	76	34.86	63	40.90
Dropped Out	41	18.80	22	14.28
Irregular Users	66	30.27	42	27.27
Continuous Users	35	16.05	27	17.53
Total	218	99.98%	154	99.98%
45+ Years Old				
Never Used	12	24.48	10	52.05
Dropped Out	15	30.61	7	22.58
Irregular Users	22	44.89	9	29.03
Continuous Users	(0)	(0)	5	16.12
Total	49	99.98%	31	99.98%

Some respondents have reported that they have tried two or three other methods before subjecting themselves to ligation. Failure or unplanned pregnancy was another reason cited for stopping the use of contraceptive methods, while other non-regular users disclosed that they stopped using contraceptive methods in order to increase the size of their families.

The second question raised was, when did the family planning acceptors, or after what number of pregnancy, did they start using any contraceptive method. This information was sought to compare women who had never worked, with women who had worked while married in terms of the number of pregnancies undergone before they started using contraceptive methods.

Table 11 shows that in the 25-34 age group a descending pattern is observable. The majority of the respondents started using contraceptives between 01-03 pregnancies. This shows that in this age group they started using contraceptive method at an earlier stage in their child-bearing ages and with comparatively fewer children at hand. In the higher age group however, a higher percentage of the respondents started using contraceptive methods in between their fourth and sixth pregnancies. This means that among the 35-45+ age group, many have started using contraceptive methods only after having at least three children.

With reference to employment participation, it is among the 25-34 age group of women who have experienced employment for cash income, that a more pronounced higher percentage of women have started using contraceptive methods between the first and third pregnancies. In the 35-44 age group for example, 36.15% of women who have never worked and 26.47% of women who had marital employment started using contraceptive methods in between their first and third pregnancies. On the other hand, a higher percentage of women acceptors in the same group, and who have had marital employment, started using contraceptive methods later, or in between their fourth and sixth pregnancies, (58.09%). The difference between the youngest and the middle age group may be the result of changing values in relation to family size, which again may be one effect of the family planning drive.

Again in the 45+ age group, the majority of the respondents started the use of contraceptive methods in between their fourth and sixth pregnancies. A slight majority of women with marital employment are classified in this category.

Table 11 - Distribution of Respondents as to the Number of Pregnancies After Which They Started Using Contraceptive Methods by Employment Participation No Employment Age

Age Group		Women Who Have Worked		Women Who Have Never Worked	
		Total No. of Respondents	In Percent	Total No. of Respondents	In Percent
25-34 Years Old					
Between 01-03 pregnancies		48	61.53	25	54.34
Between 04-06 "		20	25.64	18	39.13
Between 07-09 "		10	12.82	3	6.52
	Total	46	99.99%	78	99.99%
35-44 Years Old					
Between 01-03 pregnancies		42	29.57	30	32.96
Between 04-06 "		79	55.63	42	46.15
Between 07-09		21	14.78	19	20.87
	Total	142	99.98%	91	99.98%
45+ Years Old					
Between 01-03 pregnancies		4	11.76	9	45.0
Between 04-06 "		22	64.70	7	35.0
Between 07-09 "		8	23.52	4	20.0
	Total	34	99.98%	20	100.0%

The last fertility control variable to be discussed is duration of contraceptive use. The length of time a woman uses contraceptive methods could be one of the essential gauges in measuring effort in, and probably effectiveness of, controlling one's own fertility. In this section the duration of contraceptive use between women who have and have not experienced work for pay are compared.

It seems that it is only among women in the 34-44 age group that the percentage of women who had used contraceptive methods for a relatively long period of time (60-79) months was slightly higher among women who had worked. Among the 25-34 and 45+ age groups, almost the same percentage of women who had and had never experienced work and had used contraceptive methods could be found for the same duration of 60-79 months.

There is no clear cut differential duration of contraceptive use between women who have and have not experienced work for pay in all ages. In the 25-34 age group, for example, the highest percentage was noted among women who had never worked and had longer duration of contraceptive use, from 20-39 months. But both groups of women had an almost equal mean duration of contraceptive use falling between 20-59 months. This observation is supportive of PCF's findings in research conducted in Metro Manila.[1]

Among the 35-44 age group, the mean duration of contraceptive use among women who have worked is obviously higher than among women who have never worked: 55.8 months for women who have worked and 47.6 months for women who have never worked. There is almost no difference observable in the duration of contraceptive use among 45+ group of women. Both mean durations of contraceptive use fall between 20-59 months.

Generally speaking there appears to be no significant differences between having and not having worked and the duration of contraceptive use. Other factors must be related to duration of contraceptive use such as education, exposure to family planning, husbands' attitudes to family size and socio-economic variables.

These factors could be the bases of future hypotheses which could be tested in the same area as that covered by this study.

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[1]"Is A Large Family A Happy One?" Population News Service Vol. III/No. 4, pp. 15-18, Population Center Foundation, Metro Manila, Philippines, 1978.

Table 12 - Distribution of Respondents According to Duration of Contraceptive Use By Employment Participation/None and Current Age

Total Number of Months Using Contraceptives	Have Worked		Have Never Worked		Total	
	Number	%	Number	%	Number	%
25-34 Years Old						
/1 - 19 Months	23	30.26	12	36.36	35	32.11
20 - 39	27	35.52	7	21.21	34	31.20
40 - 59	12	15.79	11	33.33	23	21.10
60 - 79+	14	18.42	3	9.09	17	15.59
Total	76	99.99	33	99.99	109	100.00
35-44 Years Old						
/1 - 19 Months	37	26.81	14	18.42	51	23.83
20 - 39	30	21.74	14	18.42	44	20.56
40 - 59	42	30.43	30	39.44	72	33.64
60 - 79+	29	21.01	18	23.68	47	21.96
Total	138	99.99	76	99.96	214	99.99
45+ Years Old						
/1 - 19 Months	5	18.52	7	33.33	12	25.00
20 - 39	3	11.11	3	14.28	6	12.50
40 - 59	14	51.85	11	52.38	25	52.08
60 - 79+	5	18.52	(0)	(0)	5	10.42
Total	27	100.00	21	99.99	48	100.00

*(5) Gave incomplete answers

CONCLUSION AND RECOMMENDATIONS

A. PROBLEMS IN DEVELOPING PROGRAMS FOR WOMEN

Drawing upon a sample of 638 currently married women, aged 25-45+, with approximately 60% having work experience and 40% with no work experience, we found that the observed differences on the mean number of children ever born is not significant. A study dealing with a larger sample is therefore one recommendation. The findings deduced from a larger sample might provide a more conclusive association between employment variables and control of fertility. In addition, an indepth study on the attitudes and practices of married women towards time and resources allocation for cash income and child care/home management is suggested. Such a study may give planners of programs for the development of women the necessary pre-conditions for the maximization of women's resources.

It was observed from this sample that "on and off" or discontinued employment participation among currently married women is highly associated with the demand for child care and the need to have a higher paying job. These reasons encourage women to enter traditional sales activities where they are able to take care of their children and earn cash income at the same time. Equipped with an elementary or high school education, work available for these married women (if there is any) in the formal sector may not be financially rewarding. The need for child minders, low income and inadequate education, are therefore some of the factors which discourage women to work/continue working outside the home.

Continuous support for agencies whose primary concern is to evolve a wholistic development planning for the women is recommended. For this particular sample, the possible point of entry could be the provision of skills training in small-scale business in coordination with other programmes for development, such as nutrition education, child care, family planning and functional literacy. The participation of women (beneficiaries) in planning and implementing such programmes should be emphasized for they know their needs more than anybody else and they know how much they are willing to avail themselves (time and resources) of such development programs.

B. FAMILY PLANNING PRACTICE

A more pronounced difference as to the pregnancy number when women started using contraceptive methods is seen to be determined more by age than any other factor. Age group, 25-34 in both working and non-working categories of women have started using contraceptive methods between their first and third pregnancies. In the older age groups most have started using contraceptive methods between their fourth and sixth pregnancies.

Only among the 25-34 years old, where a slightly higher percentage of women who have worked were using contraceptive methods is comparatively evident (between 01-03 pregnancies).

Irregular patterns of contraceptive use, on and off users and drop outs are outstanding features of contraceptive acceptors for both working and non-working women. The majority of both working and non-working women are acceptors, but in both groups there are also irregular users.

This irregular pattern of contraceptive use for both groups of women should be further analyzed. Some side effects were cited as a result of using contraceptive devices. A separate study on this subject might help to eliminate these problems and encourage women to be more continuous users rather than on and off. This irregularity in contraceptive use is detrimental to the family planning program.

C. SOME IMPLICATIONS OF THE STUDY

Blake and Davis emphasized the "importance of acknowledging that individuals will employ such contraceptive methods only when they have in their judgment good reasons for doing so." In their view the primary cause of high fertility in developing countries today is the weakness of these reasons and not the lack of advanced contraceptive technology. It follows that a successful birth control policy will have to strengthen and create family limitation incentives, rather than concentrating solely on problems of birth control availability and legitimation.

Blake and Davis seem to have, however, generally gone to the root of the problem. In the case of this present study what would be the "good reasons" why low-income Filipinos would adopt regular contraceptive usage? What this study has tended to show is the "reason" why they have "judged" themselves as irregular and non-continuous acceptors of contraceptive methods. In reiteration, principal among these reasons for the failure to adopt regular and

continuous patterns has been lack of cash to provide alternative home care for children and the lack of education to fully understand the cycle of poverty connected with the higher the number of children, the higher the necessity to work. All these variables are intrinsically connected and any development of women's resources must necessarily be connected with an education that highlights this cycle of poverty and childbearing habits.

The logic for the "good reasons" that Blake and Davis suggest will only emerge where the above is not only understood but also internalized. It is a simple factor for the researcher to see this problem, that is, if you have more children there is a greater need for extra income but also that by having more and more there is less likelihood that you will have the opportunity to work. But it is quite another matter for a low-income women in the urban poor sector to grasp this fundamental point.

This study has certainly not been exhaustive in terms of the sample used and the variables explored but it does in a modest way suggest that the lack of "good reasons" for low-income Filipinos to adopt regular patterns of contraceptive usage is the result to some extent of not comprehending the relationship between irregular contraceptive usage and, by extension, irregular employment patterns due to regular addition to the family.

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SEAPRAP

THE SOUTHEAST ASIA POPULATION RESEARCH AWARDS PROGRAM

PROGRAM OBJECTIVES

* To strengthen the research capabilities of young Southeast Asian social scientists, and to provide them with technical support and guidance if required.

* To increase the quantity and quality of social science research on population problems in Southeast Asia.

* To facilitate the flow of information about population research developed in the program as well as its implications for policy and planning among researchers in the region, and between researchers, government planners and policy makers.

ILLUSTRATIVE RESEARCH AREAS

The range of the research areas include a wide variety of research problems relating to population, but excludes reproductive biology. The following are some examples of research areas that could fall within the general focus of the Program:

* Factors contributing to or related to fertility regulation and family planning programs; familial, psychological, social, political and economic effects of family planning and contraception.

* Antecedents, processes, and consequences (demographic, cultural, social, psychological, political, economic) of population structure, distribution, growth and change.

* Family structure, sexual behaviour and the relationship between child-bearing patterns and child development.

* Inter-relations between population variables and the process of social and economic development (housing, education, health, quality of the environment, etc).

* Population policy, including the interaction of population variables and economic policies, policy implications of population distribution and movement with reference to both urban and rural settings, and the interaction of population variables and law.

* Evaluation of on-going population education programs and/or development of knowledge-based population education program.

* Incentive schemes — infrastructures, opportunitie overall economic and social development programs.

SELECTION CRITERIA

Selection will be made by a Program Committee of distinguished Southeast Asian scholars in the social sciences and population. The following factors will be considered in evaluating research proposals:

1. relevance of the proposed research to current issues of population in the particular countries of Southeast Asia;
2. its potential contribution to policy formation, program implementation, and problem solving;
3. adequacy of research design, including problem definition, method of procedure, proposed mode of analysis, and knowledge of literature;
4. feasibility of the project, including time requirement; budget; and availability, accessibility, and reliability of data;
5. Applicant's potential for further development.

DURATION AND AMOUNT OF AWARDS

Research awards will be made for a period of up to one year. In exceptional cases, requests for limited extension may be considered. The amount of an award will depend on location, type and size of the project, but the maximum should not exceed US$7,500.

QUALIFICATIONS OF APPLICANTS

The Program is open to nationals of the following countries: Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam. Particular emphasis will be placed on attracting young social scientists in provincial areas.

Applications are invited from the following:

* Graduate students in thesis programs

* Faculty members

* Staff members in appropriate governmental and other organizations.

Full-time commitment is preferable but applicants must at least be able to devote a substantial part their time to the research project. Advisers may provided, depending on the needs of applicants.