# WORKING WIVES IN PHILIPPINE COASTAL FISHERIES

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#### Abstract

The decision to work is ultimately a decision on how to spend time; the choice being based on a comparison of the gains derived from market opportunities and the benefits of staying at home. Once in the labor force, the labor supply decision (that, is, the number of hours per time period) is influenced by various demographic, economic, and socio-psychological factors. Using this framework, this paper seeks to determine the significant predictors of married women's labor supply behavior. This is further an attempt to identify potential entry variables in aid of legislation and policy formulation that will address gender issues. The focus is on married women in Philippine coastal fisheries.

### Introduction

With the onset of the market economy, the home and the workplace started to be separated. The workplace was located farther and farther away from home, and a system of labor power in exchange for wages emerged. The household, as a unit of production and consumption, underwent profound changes, one of which was the political economy of gender.

The rural fishing sector in the Philippines, however, did not change as significantly as its urban manufacturing/service sector counterparts. Traditional methods of fishing require much physical effort, which the men generally provide. Nevertheless, the "helping out" role of women in coastal fisheries is work that cannot be dispensed with, even with more men in the fish production system. The labor supply of women remains low. This low rate of participation in the labor force implies that women remain limited to short working hours, "feminine" jobs. The high incidence of unpaid female labor contributes to the low cash incomes brought home by women. Subsistence level fishing keeps women mostly as homemakers, or as workers in non-fishing-related economic activities such as in the informal service sector. In a fish production system that is very limited to catching fish and selling them immediately with the least storage and/or preservation, there is inequality in access to economic resources in the community for women. There is subordination of women to men's work, resulting in the women's inability to exercise their full potentials and capabilities.

A large number of households in coastal communities lives below the poverty threshold. The urgent need to augment family income leaves the wife no choice but to sell her labor services in any paid work opportunity. Unfortunately, this phenomenon does not change the reproductive role of women, causing women to bear multiple roles and responsibilities-one of the central issues of feminism. It is not only the men who bring home the rice and fish for daily living. Women do too, and they still have to cook and serve their family members.

The crucial question then is how can women's access to economic resources in general and employment in particular be improved. The Philippine coastal fisheries sector lags behind in terms of productivity,

efficiency in resource allocation, and employment levels. Given this scenario, how can it increase women's paid work hours/efforts?

In aid of legislation and development policy formulation for the coastal fisheries sector, this paper attempts to identify correlates of married women's contribution to the labor market. Aside from wage rates, what are the factors that can change a married woman's decision regarding the extent of paid work hours that she offers in the labor market?

# Specification of the Model

The conceptual model is cast in the income-leisure choice model where the married woman who opts to offer her labor services in the market consciously decides on the number of work hours spent for pay or profit.

The decision to work is ultimately a decision to manage time between work and home. This decision is the choice between being in the labor force or being out of the labor force. A neoclassical time allocation model advanced by Becker (1965) and Mincer (1962) is used to explain how an individual decides on the allocation of her time between the home and the labor market (Blau and Ferber 1992). Known as the New Household Economic Model, it assumes that adult members of the family make informed and rational decisions, resulting in the attainment of maximum utility or satisfaction. Individuals decide whether or not to participate in the labor market by comparing the value of their market time, w, to the value they place on their time spent at home,  $w^*$ . Participation in the labor force, the choice of whether or not to work or seek market work, is based on a comparison of market opportunities and the benefits of staying at home (Filer et al. 1996).

Participation decisions depend on changes in economic variables that influence the values of both market and non-market times. Factors that influence market time (w) include woman's education, changing levels of economic activity, increases in overall labor productivity, and higher wages brought about by urbanization. Increases/improvement in these areas have caused rising trends in married women's participation in the labor force (Blau and Ferber 1992). However, this trend cannot entirely be ascribed to higher wages nor can those changes that influence the relative value of non-market time ( $w^*$ ) be overlooked. These variables include demographic trends, tastes, rising husband's income, availability of mother-substitutes, and presence of non-labor income (Blau and Ferber 1992).

Once in the labor force, how much time do workers spend on their jobs? The labor supply decision refers to the number of hours that workers are willing to work. The income-leisure choice model that is used to analyze how a rational decision maker chooses whether or not to participate in the labor force can similarly be applied to analyze how such a decision maker chooses the number of work hours to supply (Filer et al. 1996). Under consumer utility maximization assumptions, a worker will supply labor services up to a point where her/his marginal rate of substitution of income for leisure equals the wage rate.

A married woman's labor supply behavior is, then, basically a rational decision concerning a trade-off between benefits derived from working for pay or profit, on one hand, and the benefits derived from undertaking non-market activities at home, on the other. In order to determine the significant correlates of married women's differential labor supply behavior, the model to be empirically tested is written as EMPW = f (AGEW, EDUC, CHIL, LAST, HHSI, SUBS, HUSY, OTHY, NOLY, FISH, ATTI, WOCO, WOMB, FERT)

EMPW	=	woman's work effort
AGEW	=	age of the married woman
EDUC	=	married woman's educational attainment
CHIL	=	presence of children less than six years old
	EMPW AGEW EDUC CHIL	EMPW = AGEW = EDUC = CHIL =

LAST	=	recency of last childbirth
HHSI	=	household size
SUBS	=	availability of mother substitutes
HUSY	=	husband's average monthly income
OTHY	=	contribution of other family members to family income
NOLY	=	nonlabor income received by the family
FISH	=	market value of fishing vessels/paraphernalia owned
ATTI	=	husband's attitude towards female work
WOCO	=	wife's work commitment
WOMB	=	premarital work experience
FERT	=	future fertility plans

The data source is primary information derived from a rapid appraisal survey conducted for the purpose. The dependent variable, EMPW, is measured in terms of work hours offered in the labor market for wage or profit on an average monthly basis. A woman is defined to be a market participant if she worked for money some time in the survey period.

The employment of the woman includes both primary and secondary jobs, in fishing and fishing-related activities. Employment is either to work for other employers or are self-employment activities. Average work hours per day during the month immediately preceding the conduct of the survey is the relevant data. Specifically, the measure of work effort is the number of days worked per week multiplied by the "average" or "usual" hours worked per day. This measure avoids the kind of sample bias that arises when one uses only the reported hours on the day the survey is conducted. This specification is derived from the model used by Heckman and Macurdy (1980) in analyzing the life cycle labor supply decisions of married women.

The independent variables include demographic, economic, and socio-psychological factors relevant to the working married woman and her family. Table I shows a summary of the variables used in this study and their corresponding measures. The subjects of the study consisted of women who had been continuously married to the same spouse during the past year. They had been working for pay or profit during the month immediately preceding the week when the survey was conducted, from December 1999 to January 2000. The nature of their employment may have been on a full-time or part-time basis. The women may have been working in the fishing sector either for pay or profit. Unpaid work is excluded.

The research locale was purposively chosen for this study. It included Capoocan, Barugo, and Carigara (all along Carigara Bay) in Eastern Visayas, Philippines. These fishing communities produce a volume of fish that is immediately sold in its fresh state, with the least preservation (e.g., salting, refrigeration, smoking) needed. Three barangays, from where 20% of the married women (but not less than 30), were randomly chosen as subjects of the study. There were 254 married women - respondents.

Using SPSS, correlation and stepwise multiple regression were run to statistically determine significant correlates of married women's labor force participation in the fisheries labor market. At least four alternative regressions were run. That is, models that include demographic variables only, economic variables only, socio-psychological variables only, and finally, all the identified variables. This is an attempt to determine significant predictors per identified category of the variables used.

Table 1. Measurement of variables.

Code and Name of Variable	Measurement			
Dependent Variable:				
EMPW Woman's work effort	Days worked per week multiplied by the "usual" hours worked per day during the month immediately preceding the survey.			
Demographic Variables:				
AGEW Age of married woman	The chronological age at nearest birthday.			
EDUC Married woman's educational attainment	Number of years of formal schooling completed.			
CHIL Presence of children less than 6 years old	Number of children less than 6 years old who are living with the mother.			
LAST Recency of last childbirth	Number of years since last childbirth.			
HHSI Household size	Headcount of persons dwelling in the same unit and sharing in the budgeting and decision-making activities.			
SUBS Availability of mother substitutes	Dummy variable: 1 if there are available mother-substitutes, 0 otherwise.			
Economic Variables:				
HUSY Husband's average monthly income	The husband's average monthly income from all sources during the last 12 months.			
OTHY Other family members' contribution to family income	Sum of other family members' average monthly income from all sources during the last 12 months.			
NOLY Nonlabor income	Sum of average nonlabor incomes derived by all family members during the last 12 months.			
FISH Value of fishing vessels and paraphernalia	Market value of fishing vessels/paraphernalia owned by the family.			
Socio-psychological Variables:				
ATTI Husband's attitude towards female work	A Rating Scale adopted from Layo (1977) was used.			
WOCO Wife's work commitment	The score taken from a Work Commitment Index adopted from Herrin (1979).			
WOMB Wife's premarital work experience	Dummy variable; 1 if wife worked before marriage, 0 otherwise.			
FERT Future fertility plans	Dummy variable; 1 if wife plans to bear a child in the future; 0 otherwise.			

### Results

#### A. The Profile of Married Women

The number of hours spent by a married woman in paid work or work for profit partly depends on the nature of the market or the occupational group that she belongs to. Research results show that married women in coastal fisheries have short average work hours at only 4.7 hours per day, happening intermittently, or 104.25 hours per month. This is very short compared to the formal market where labor laws have set an employee's regular work hours at 8 hours per day for 5 days per week, or from 176 to 184 hours per month.

Demographic Characteristics. Married women in fishing communities exhibit a profile that is typical of participants in informal labor markets. They are as young as 20 years old and as old as 73 years old with a mean age of 42 years. There is no minimum age requirement for entry nor a maximum age requirement for retirement from paid work.

Educational attainment does not serve as a screening device in informal markets. While there are college graduates (those with 14 years of formal schooling), there are also women with no completed years of schooling. The fishing communities registered a mean value of 7.3 years.

Household sizes are as small as two and as large as 11. The former refers to cases of old families where the couple has been left alone, or in female-headed families with a child or grandchild to take care of. The latter refers to extended families, or in some cases, to nuclear families with many children. The average household size is about six.

Sector	Variable	Minimum	Maximum	Mean	SD
Fishing	EMPW (dependent variable)	14.00	144.00	104.25	54.90
	Age of woman	20.00	73.00	42.0	11.28
	Highest educational attainment	.00	14.00	7.3	2.50
	Household size	2.00	11.00	6.3	2.14
	Years since last childbirth	.00	40.00	7.2	7.28
	No. children less than 6 years old	.00	4.00	1.1	1.18
	Presence of mother-substitutes Yes = 65 (25.60%)				

Table 2. Demographic profile of married women in fishing communities (n= 254).

The life cycle of the family is indicated by the number of children below six years old, and the number of years since the last childbirth. Data shows that the more recent the last childbirth, the greater the number of children below six years old. On the average, the women have at least one small child who was born within the last six years.

Economic Indicators. The families of the women in this study are poor, and generally fall below the poverty threshold as reflected by selected economic parameters. Highest monthly income of husbands is PhP9,000.00 (US\$180) with a mean value of Php2,631.70 (US\$52). Variations in monthly incomes are due to any of the following: the frequency of fishing; type of fishing vessels used; ownership of fishing vessels; hours spent in fishing and fishing-related activities; engaging in non-fishing economic activities such as poultry and livestock-raising; having multiple employment; rentals of family-owned properties; or in some cases, being hired in the formal sector, whether on a regular or contractual basis.

At the other end of the continuum are husbands whose incomes equal zero. This gives rise to femaleheaded families, where the wife usually becomes the primary breadwinner.

Sector	Variable	Minimum	Maximum	Mean	SD
Fishing	Husband's income	.00	9000.00	2631.7	1765.06
	Other family members' contribution to income	.00	10200.00	486.2	1470.34
	Nonlabor income	.00	42000.00	9598.4	11987.69
	Market value of fishing vessel owned	.00	5000.00	174.0	553.57

Table 3. Economic profile of married women in fishing communities (n= 254).

In many cases, all able-bodied family members get employed in order to augment family income. However, data reveal that average monthly contributions of other family members to family income is low, with a mean value of PhP486.20 (US\$9.60). This income is irregular.

Non-labor income is another source of the family's wealth. This comes from transfer payments, rentals of assets, winnings from gambling, and other forms of aid from private/government sectors. Most often, this form of income is intermittent, unstable, and low.

Ownership of properties indicates access to economic resources, which may affect women's decisions to participate in the labor force and the extent of paid work hours. In fishing communities, the market value of fishing vessels/paraphernalia owned indicate that only few families own the bigger vessels, which assure economies of scale in fishing operations. Non-ownership of the tools of the trade means lesser work hours spent by the husband and male family members in fishing, and hence, lower incomes derived from the said activity.

Socio-psychological Considerations. Perceptions and social nuances attached to particular economic sectors affect a married woman's decision as to whether or not she will get paid work and to what extent.

In a rating scale where a score of 25 reflects the least favorable attitude of the husband towards his wife's labor supply decisions (as perceived by the wife), a mean value of 15.1 can be construed negatively. Husbands generally would disapprove of their wives working if the family income is sufficient. Given no better option, husbands then find themselves appreciating wives who help earn for the family's upkeep.

The involvement of women in fish production makes work for the men as the former are relegated to the type of work which are extensions of housework along constructs of maternalism and nurturance. Women are oftentimes considered as appendages to men's work. They clean fishing paraphernalia/tools of the trade, mend fish nets, and market the harvest. Most of these work is unpaid but is necessary in the whole fish production system.

Women's commitment to work for non-familial reasons reveal a mean of 33.0. In a scale of 1 to 50, this score does not seem to reflect a very strong desire in the married woman to work for reasons not directly related to family welfare considerations. Hence, what moves married women to work is basically the need to uplift the family's standard of living over their desire to reach self-fulfillment and self-realization brought about by the use of their potentials/capabilities.

Sector	Variable	Minimum	Maximum	Mean	SD
Fishing	Husband's attitude toward female work	5.00	23.00	15.1	3.24
	Woman's work commitment	22.00	44.00	33.0	3.26
	Pre-marital work Yes = 165 (65.00%)				
	Fertility plans Yes = 200 (78.70%)				

Table 4. Socio-psychological profile of married women in fishing communities (n =254)

A married woman's decision to work may also be affected by her pre-marital work experience. About 65% of the 254 women-respondents claimed to have worked for pay or profit before marriage. Labor force participation is, however, lower in purely subsistence fishing where the males dominate.

Fertility among married women is high in the fishing communities as claimed by 200 respondents (78.70%). This may be due to the value attached to children as sources of financial assistance and security. The same reason holds for another finding which reveals that children serve as mother-substitutes in cases when mothers decide to seek paid work outside the home. Older children and the presence of non-nuclear family members release mothers to the labor market. About 25.60% of the households in fishing villages have mother-substitutes at home.

#### B. Significant Predictors of Married Women's Labor Supply Behavior

A correlation matrix of the variables reveal the expected relationships. The number of work hours offered by a married woman in the market is positively and significantly associated with EDUC. This reveals that a higher educational attainment increases the labor supply of the woman. OTHY and LAST though positively associated with EMPW do not come out to be significant variables due to its (EMPW) being highly correlated with EDUC.

On the other hand, CHIL, FISH, and ATTI show a negative and significant association with EMPW. This indicates that the married women's work hours spent on paid work decreases with the presence of more children who are below six years old in the home, or with a greater ownership of fishing vessels/paraphernalia, or with an unfavorable attitude of the husband towards female work. Other variables that are negatively associated with EMPW though insignificant, include HHSI, HUSY, NONY, ATTI and SUBS. This result can be explained by the high correlation between the said variables.

A stepwise multiple regression from SPSS was used to determine the minimum number of predictors needed to explain the maximum variance in the criterion, and to estimate the likely score of a criterion from the predictors identified in the study.

#### Regression 1: Demographic-Variables-Only Model

The presence of children less than six years old comes out as a more significant predictor than the household size. Beta coefficients are -0.215 for CHIL and 0.191 for HHSI. A married woman's work hours in fishing and fishing-related activities decreases by 3.623 for every additional child in the family below six years old. It, however, increases by 1.786 per unit change in household size, all other factors held constant.

The adjusted  $R^2$  in the regression run, though significant, is very low. Only at most 3.8% of the total variance in the labor supply behavior of married women is explained by the demographic predictors. A major proportion of the total variance can be explained by other factors that are excluded in this demographic-variables-only model.

Regression Run	Significant Predictors	В	SE B	Beta	Т	Sig t
Demographic-Variables-Only-Model	CHIL	-3.623	1.161	215	-3.120	.002
	HHSI	1.786	.644	.191	2.772	.006
	(Constant)	25.259	3.862		6.540	.000
	Adjusted $R^2 = 0.038$ F = 6.053 p va	lue = .003				
Economic-Variables-Only Model	FISH	-4.367E-04	.000	262	-4.319	.000
	OTHY	1.990E-03	.001	.146	2.414	.017
	(Constant)	35.652	1.575		22.629	.001
	Adjusted $R^2 = 0.076$ F = 11.381 p v					
All variables Included	FISH	-4.466E-04	.000	268	-4.444	.000
	OTHY	2.079-03	.001	.153	2.537	.012
	WOCO	.791	.369	.129	2.144	.033
	(Constant)	9.601	12.252		.784	.434
	Adjusted R <sup>2</sup> = 0.089 F = 9.228 p value = .000					

Table 5. Significant demographic predictors of married women's labor supply behavior

#### Regression 2: Economic-Variables-Only Model

Alternative income level parameters and the ownership of properties were used in the model. FISH and OTHY are significant predictors of EMPW, with FISH as the better predictor as indicated by the beta coefficient.

$$EMPW_{fish} = 35.652 - 0.0004FISH + 0.0019OTHY$$
 (-0.262) (0.146)

Work hours decrease by 0.0004 units per unit change in the market value of fishing vessels/paraphernalia owned by the woman's family, all other factors held constant. On the other hand, total work hours increases by 0.0019 per unit increase in income contributed by other family members to the family coffers.

The resulting adjusted  $\mathbb{R}^2$  is low at 7.6%. This indicates that the identified independent variables are not enough to explain the total variance in the criterion. An economic-variables-only model, therefore, leaves so much of the total variance of EMPW to be explained by factors excluded in the model.

#### Regression 3: Socio-psychological-Variables-Only Model

A third regression model to include socio-psychological variables does not reveal any significant parameter. The model does not provide a good explanation of the total variance in the work hours offered by a married woman in the labor market. Obviously, it excludes many possible good predictors.

#### Regression 4: All-Variables Model

In a fourth regression specification, all the identified independent variables are included in a stepwise multiple regression analysis. The variable that is most highly related to the criterion variable is entered first into the regression equation followed by variables that are the next most strongly related to the criterion once their relationship with the other variables is taken into account. If later variables are strongly associated with the variables already entered, then it is less likely that they will independently account for much more of the variance than those previously entered and so they are unlikely to be included as predictors (Cramer 1997: 301).

No demographic variable is found to significantly explain the total variance in EMPW.

EMPW<sub>fish</sub> = 9.601 - 0.00045FISH + 0.0021OTHY + 0.791WOCO (-4.444) (2.537) (2.144)

Two of the significant predictors are economic variables and one is a socio-psychological variable. Ownership of fishing vessels/paraphernalia is negatively related to the married woman's work effort. This can be explained through the husband's access to the means of production/economic resources which increases his income and discourages his wife to work. The husband's attitude towards female work is generally less favorable.

OTHY exhibits a positive relationship with EMPW. That is, a woman's work hours increases by 0.0021 per additional unit change in other family members' contribution to family income. This is rather a less expected relationship since ordinarily, higher family incomes will discourage women to work for more hours. This result may then be explained: while there are additional income contributions from other family members, such contribution is relatively low to enable the family to move to a higher standard of living. Hence, the married woman is still pushed to work longer hours.

A woman's work commitment to non-familial reasons is positively related to her work hours in the labor market. EMPW increases by 0.791 per unit increase in WOCO. Working hours is significantly improved and this is related to a woman's desire for self-actualization/self-realization over the desire to work in order to augment the family income.

The adjusted  $R^2$  reveals a low value at 8.9%. The multiple linear regression model as a whole does not explain nor "fit" well the variance in the dependent variable. It shows that only a very small proportion of the linear variance in the criterion is explained by all the independent variables acting together. A low value of the adjusted  $R^2$  can occur for several reasons.

First, the vector of predictors may not be good explanatory variables. In this study, all the variables included in the model have largely a *priori* theoretical considerations as cited in the literature review. It, however, deliberately did not include the variable, offered wage to the woman in the labor market. While literature shows that this is a very significant predictor in universal studies, this was purposively excluded in this paper since its objective is to determine significant predictors of a married woman's work hours, other than the alternative wages offered to the married woman in the labor market.

Second, in cross-section studies a lower squared multiple correlation may occur even if the model is a satisfactory one because of the large variation across individual units of observation which is inherent in the data (Pindyck and Rubinfeld 1991). This suggests that the  $R^2$  alone may not be a suitable measure of the extent to which a model is satisfactory.

Third, in social research, particularly high values of  $R^2$  should not be expected. This is because there are so many factors, which might contribute to influence a variable that one cannot reasonably expect to be able to analyze or even measure. As a rule of thumb, the  $R^2$  depends obviously on individual circumstances.

Fourth, a low  $\mathbb{R}^2$  does not necessarily mean that there is no association between the variables, nor is there the absence of significant predictors of the criterion (Norusis 1985). Instead, it indicates that there is no linear relationship.

Results of this study further reveals that based on the F statistic, the computed  $R^2$  is significant. It is possible for  $R^2$  to be significant at a given level even if the value is low, and/or even though very few of the regression coefficients are found to be significant according to individual t-tests (Pindyck and Rubinfeld 1991). This situation arises if the independent variables are highly correlated with each other. The result may be high standard errors of the coefficients and low t-values, yet the model as a whole may fit the data very well.

## Discussion

Several results from the regression runs/models using the SPSS stepwise multiple regression analysis may be interpreted as follows: AGEW was not found to be a significant predictor. This may be due to the possibility of a potential non-linear relationship between AGEW and EMPW. Young mothers and older women have relatively lesser work hours in the market. It is the middle-age woman who finds more hours in the labor market. Young mothers withdraw from the labor force when children are born and the couple starts to build a family. The older women withdraw from the labor market because of age and because the traditionally male-dominated fishing sector will prefer men over women, and younger women over older women, specifically when there is surplus labor. The older women are first to be fired but last to be hired in an arena where masculinity dominates the hiring-firing decisions.

The recency of last childbirth, LAST, is not significantly related to work hours. This may be caused by the variable's high correlation with other demographic variables such as CHIL and HHSI, and other economic variables such as FISH and OTHY all of which have shown significant contribution in explaining total variance of the criterion. It is noted that collinearity results in high standard errors of coefficients.

The presence of mother-substitutes, SUBS, does not significantly affect EMPW either. It is the common practice in fishing communities for mothers to bring small children to the workplace. In non-fishing economic activities such as vending or tending a store, the house is the workplace and the shop. Hence, the mother harmoniously combines home time and work time. The presence or absence of mother-substitutes seem not to significantly affect the length of time a woman spends for paid work.

A higher educational attainment improves the productivity of women in the workplace. It also improves the women's understanding of the production process and new techniques/technology of the trade. A higher educational attainment widens the opportunities for better-paying non-fishing-related work (such as employment in the formal sector), and increases the probability of multiple employments. However, EDUC does not come out as a significant predictor.

On the other hand, HHSI does. Based on literature, HHSI may either have a direct or an inverse relationship with the labor supply behavior of married women. On one hand, a woman may increase work hours to improve the financial position of a large family whose needs are increasing. Or, it could be viewed as a larger family reflecting a not-so-young family whose children can be left on their own, hence, releasing the mother to seek more paid work hours. Or still, a larger family implies the presence of mother-substitutes that similarly enables the woman to seek longer paid work hours. On the other hand, a woman may decrease work hours if a large household size means that more able-bodied family members are significantly contributing to family income. In this study, it is the positive relationship that is revealed.

Another significant demographic predictor is CHIL. The presence of children in the family who are less than six years old adversely affects a woman's labor supply decision. A mother is traditionally expected to perform her maternal/nurturing domestic roles over and above engaging in economic activities for pay or profit. Moreover, among poor families, nursemaids are uncommon. This leaves the woman no choice but to spend more time at home to rear small children at the expense of work time.

With regards to economic variables, FISH is a significant predictor that shows negative relationship with EMPW. This can be explained by the family's access to the means of production. That is, if the family owns the tools of the trade, chances are for incomes to be higher. Hence, the woman need not work in favor of spending more home time to take care of her growing children.

On the other hand, OTHY, another significant predictor of EMPW affects in a positive manner. That is, even if other family members contribute to the total family income, a woman will still desire to work longer if such contribution falls below a minimum level which is set by the family as a requirement to stay on a target/desired welfare position of the family. In the study, therefore, it seems that contribution of other family members to total family income is low. This is expected in fishing communities where alternative job opportunities are limited, and where the labor force lacks human capital. Consequently, jobs do not provide stable, regular and better terms/working conditions. On the other hand, a possible non-linear relationship between OTHY and EMPW is worth considering.

Among the socio-psychological factors, only WOCO came out as a significant predictor, the commitment of the woman to work for non-familial reasons. Work is not primarily carried out for material or financial reasons but more increasingly because of the woman's desire to express herself and use her expertise/capabilities in activities outside the daily routine and the confines of the home. This behavior was observed specifically for women with higher educational attainment. However, increase in work efforts are registered in non-fishing-related economic activities since the fisheries sector is male dominated and the traditional fish production system is not woman-friendly.

On the other hand, FERT and WOMB do not significantly explain the total variance in the criterion, EMPW. Future fertility plans is highly correlated with household size, and the number of children below six years old, which was found to be a significant predictor. This multicollinearity may also explain why pre-marital work experience failed to emerge as a significant predictor.

The empirical analysis, moreover, showed that the combined influence of the various factors resulted in higher  $\mathbb{R}^2$  values and more significant predictors of the labor supply behavior of women. Obviously, the addition of independent variables that are based on *a priori* theoretical framework, and the absence/minimum multicollinearity of the predictors will increase  $\mathbb{R}^2$ .

# Conclusion

Women in fishing communities generally have low educational attainment. They come from mediumsized households of about six family members, at least one of whom is below six years old. They are married to husbands who, with a similar educational profile, do not bring home as much cash income as necessary for the family to stay above the poverty threshold. Other able-bodied family members contribute to family incomes, but these incomes are earned irregularly and at low levels.

The labor supply behavior of married women is a decision concerning a trade-off between the benefits derived from working for pay or profit, and the benefits derived from undertaking non-market activities at home. Married women tend to offer more work hours in the labor market under the following conditions: absence of children who are less than six years old, greater work commitment for non-familial reasons; a larger household size which allows for the presence of mother-substitutes and/or insufficient income contribution by other family members; and the family's non-ownership of fishing vessels/tools of the trade.

These empirical results show that the significant predictors are mostly economic in nature. In view of these findings, the following recommendations are made. To address the issue of low  $R^2$  values, further studies can be undertaken in the following areas:

- a) a new set of data gathered in fishing communities which use alternative types of fishing technology;
- b) possibilities of a nonlinear relationship between EMPW on one hand, and HUSY or EDUC or OTHY on the other hand;
- c) the inclusion of a more direct predictor which has a strong *a priori* theoretical framework such as alternative wage offers to the married woman;

d) a more qualitative replication of this research in various economic sectors and different occupational groups in the market.

All of these can be done for academic purposes such as to develop instructional materials. These are expected to improve/contribute to the existing local literature on women and work.

In aid of legislation and policy-development formulation, the following entry variables that will improve the married women's status in the fisheries labor market seem to stand out from the empirical results:

- a) the introduction of women-friendly fishing technology that spans from production, storage/preservation, and marketing;
- b) provision of non-fishing related work for more family members who are able and willing to work to augment family income;
- c) better and greater access to the means of production/economic resources through a mechanism that will enable the family to derive sufficient and regular incomes throughout the year;
- d) a community-based re-orientation through barangay public forums on a gender-sensitive and genderfair coastal fisheries economy, where women are not merely appendages to men's work but are equal partners in the whole fish production system.

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