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Thesis title: Intra-household bargaining power and female labor force participation: Evidence from urban areas in Indonesia

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Abstract

The paper examines the relationship between women's Intra-Household Bargaining Power (IHBP) and Female Labor Force Participation (FLFP) in urban areas of Indonesia. In observing the IHBP and FLFP's relationship, I control women's characteristics and household composition. The Indonesia Demographic and Health Survey in 2017 is the primary data source for this research. I use 4346 eligible observations of women aged 15-49 who currently reside in urban areas and live with their husbands. This data is then analyzed with logit regression due to the binary dependent variable of FLFP. Four indicators of IHBP: *large household purchase, women's healthcare, family visit,* and *husband's earnings* are the independent variables. Consistent with previous literature, *large household purchase, women's healthcare,* and *family visit* show a positive correlation between IHBP and FLFP. In other words, a lower IHBP is significantly associated with a lower probability of FLFP. However, the *husband's earnings* show a contrasting result in which a lower women's IHBP is associated with a higher probability of FLFP.

Keywords: Intra-household bargaining power, labor force participation, gender, labor supply

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"The Lord is my shepherd, I lack nothing. (Psalm, 23:1)"

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Abbreviation

DHS	Demographic Health Survey
FLFP	Female Labor Force Participation
GEI	Gender Empowerment Index
ICT	Information & Communication Technology
IHBP	Intra-Household Bargaining Power
MLE	Maximum Likelihood Estimation
NGO	Non-Government Organization
PP	Percentage Points
UN	United Nations

Contents

1. Introduction

The female labor force participation in Indonesia's cities is lower than male labor force participation, while gender inequality deprives cities' development (UN Habitat, 2009). In combination with the high rate of urbanization in Indonesia[1] (UNDP, 2017), the severity of the gender-related urban issues will continue to widen and deepen. The women's labor force participation in Indonesia's urban areas is stagnant at around 50%, two-thirds of men's participation (83%) (the Indonesia Ministry of Women's Empowerment and Child Protection, 2016). In the study related to FLFP in urban Indonesia, scholars have studied the individual and household characteristics as factors associated with FLFP (Lusiyanti and Wicaksono, 2020). However, more focused research on a specific group of females, such as married women, has not been done. This paper will explore factors of labor force participation associated with married women because the majority (64.5%) of productive-aged females (20-60 years) in urban Indonesia are married (Indonesia Statistics and the Indonesia Ministry of Women's Empowerment and Child Protection, 2018). The paper examines whether married women's intra-household decision-making power is associated with their propensity to work through the significance and magnitude of those relationships. The result of the research can become crucial information for effective targeted urban development policies.

The observation of the association between IHBP and FLFP is inspired by a previous study on the household collective model. The household collective model indicates that households comprise individuals with a distinct preference for using household resources (Chiappori and Mazzocco, 2017). The outcome of the individual's (husband or wife) preference is measured by each member's utility. Together, members maximize the household's utility and achieve Pareto efficiency. The Pareto (μ) weights the control over the household decision[2] with values of μ between 0 and 1. The value of 0 represents no say on household decisions. As μ increases, the decision-making power of the member increases up to 1, which is perfect control over choices made in the household. I will adapt the model and replace the household's utility with FLFP. I will also substitute μ with intra-household bargaining power, defined by whether a household decision is made by the wife alone, together, or the husband alone.

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[1] 73% of Indonesians are expected to live in cities by 2030
[2] based on prices, wages, income, and distribution factors

I examine the relationship between IHBP and married women's labor force participation quantitatively using datasets of 2017 Indonesia demographic and health surveys data with the 2017 Indonesia Statistics' gender empowerment index. In measuring the relationship, I use logit model and control key factors related to IHBP and FLFP, such as women's individual, household composition, and socio-cultural indicators. As a result, among urban Indonesians, a lower IHBP is significantly associated with a lower likelihood of FLFP, except for the *husband's earnings*. For *husband's earnings*, a lower women's IHBP is associated with a higher probability of FLFP. A potential explanation for this contrasting result is the Indonesian cultural perception of women as the "manager of the household". As the household's manager, women are involved in unpaid household activities but have higher bargaining power over the household's resources. However, qualitative studies can further enhance and strengthen the reliability of this argument, such as through interviews of household members.

The rest of this paper is structured as follows: The next chapter contains literature reviews on the relationship between gender equality and urban economic development, factors associated with female labor force participation, and intra-household bargaining power. Chapter 3 describes the data and methodology of this study. Chapter 4 presents and discusses the results. Lastly, section 5 concludes the study.

2. Literature Review

Married women in Indonesian cities face unique challenges. The cultural mixtures between races and more modern influences from western countries have differentiated the dynamic of urban households and urban labor market from their rural counterpart. In urban areas, women generally benefit from various socio-economics opportunities (Chant, 2013). However, the wider labor market participation opportunities are not usually followed by men's participation in the care economy and cause "women's double day"[3] (Chant, 2013). In this section, I will present the previous literature that discusses the hindering and encouraging factors for women to participate in the labor force, both from the demand and the supply side of the labor market. After that, I will exhibit literature on intra-household bargaining power, explaining the nature of household decision-making.

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[3] the time working women spend on domestic tasks does not differ than those out of the labor force

2.1.Factors Associated with Female Labor Force Participation

The economic demand and supply model is applicable to elucidate female labor force participation. Factors on the demand side include labor market access obstacles in the form of non-inclusive work-family legislative and policy framework, sectoral discrimination, and the gender pay gap, which translate into a negative association with FLFP. On the other hand, the supply side includes individual characteristics, household composition, resource allocation within marriage, and intra-household decision-making power.

Female Labor Demand. Government and business companies have extensive roles in shaping a more inclusive environment in the labor market competition. First, non-supportive work-family legislative and business institution policies discourage people with family-care responsibilities, especially women, from participating in paid-labor activities (Addati, Cassier, and Gilchrist, 2014). The main issue relies on parental leave eligibility in which paternity and adoption leave is non-existence, despite their equal importance[4] to maternity leave. Furthermore, in countries with weak social security, parental leaves are often unpaid, which disadvantages the person responsible for providing care in terms of income and competitiveness in the labor market. Hence, businesses often perceive hiring women with a higher opportunity cost than hiring men due to the policy framework, which emphasizes women as the main provider of childcare (maternity leave but not paternity leave). On the other hand, without protection and support in the formal labor market, women may see a greater opportunity cost in being employed than solely providing childcare.

Second, gender-based sectoral discrimination remains despite more females getting higher education and skills in many male-dominated fields (OECD, 2017). As a result of gender segregation, women are more likely to work in lower-wage occupations. For example, women-dominated sectors such as social work, nurses, and primary education generally receive a lower wage than male-dominated roles such as engineers, doctors, and CEOs of multinational businesses. In urban China, even when women start to dominate an industry that used to be male-dominated, an increase in women's proportion in the industry is associated with a decrease in relative wages in that industry (Knight, 2021). Similarly, in Jakarta, Indonesia, occupational

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[4] to fulfill the need for parental childcare until the child is ready to be in the care of people other than the parents.

segregation and wage disparity between men and women persists even for the group of highly educated population (Utomo, 2004). In short, the demand for women's employment is relatively low for high-paying occupations and relatively high for low-paying jobs.

Third, labor policies take part in the unfavorable business environment for women. Since the parliament is responsible for policymaking, scholars have studied the effect of women's representation on women-related policies and found mixed results. For example, a study from sub-Saharan Africa shows that women's representation in the parliament added HIV and property rights issues to the policy agenda but did not change the policy outcomes (Devlin and Elgie, 2008). However, a more positive outcome can be seen in Rwanda's case. As the number one country with the most percentage of women in parliament, women representatives in Rwanda have helped in women-related legal reforms such as gender-equal inheritance rights, elimination of discrimination in politics, equal pay, and ending gender-based discrimination and violence at work (UN Women, 2018).

Female Labor Supply. In understanding the (dis)incentives for women's participation in the labor market, a micro-level observation of the individual and household factors is crucial. Overall, studies on the relationship between households and FLFP can be categorized into three groups: household members' characteristics, household compositions and features, and resource allocation within the household.

First, household member's characteristics include women's age (Ejaz, 2007), women's educational attainment (Ejaz, 2007), women's access to ICTs (Chen, 2004; Tanaka and Muzones, 2016), husband's education attainment (Agusta and Ghuzini, 2020), and husband's occupation (Agusta and Ghuzini, 2020). In urban Pakistan, the older and the higher educational attainment married women have, the higher the female labor force participation (Ejaz, 2007). In terms of access to ICT, Chen (2004) finds an increase in the ICT infrastructure is associated with a rise in gender equality in education and employment. Chen's (2004) finding is aligned with Tanaka and Muzones (2016) that shows a restrain in women's access to information has a negative association with female labor force participation. From the perspective of the husband's individual choice and background, a higher husband's educational attainment is correlated with a lower female labor force participation (Tanaka and Muzones, 2016). Yet, if the husband has an

informal job, the probability of women participating in the labor force increases (Tanaka and Muzones, 2016).

Second, the household compositions and features are accounted for by the presence of young children and childcare (Ejaz, 2007), household wealth (Agusta and Ghuzini, 2020), as well as availability and access to transportation (Ejaz, 2007; Tanaka and Muzones, 2016). Social norms emphasize women's domestic responsibilities, and main childcare providers have limited women's participation in paid labor, especially in households with young children (Ejaz, 2007). In urban China, a study finds that the presence of a parent or parent-in-law in the house increases the probability of married women participating in the labor force (Maurer-Fazio, Connelly, Chen, and Tang, 2010). The presence of the elderly in the household suppresses women's burden for domestic and childcare responsibilities. Next, household wealth has a u-shaped correlation with FLFP as the poorest households have a high probability of FLFP, lowest for the middle-income households, and increasing again for rich households (Fu, Liao, and Zhang, 2016). Last, the availability and accessibility of transportation are key factors in helping women manage their multiple roles (Hamilton, 2002). For example, women often face a time-constraints in commuting to provide childcare (including driving and picking up children from school) and household responsibility (going to the market), which limit their availability for employment. In developing countries, besides unreliable public transportation, the low safety measures for women are negatively associated (15.5% lower) with women's willingness to have a paid-work (Woldemichael, 2020). The literature reflects in a study in urban Pakistan, where women with access to vehicles are more likely to participate in the labor force (Ejaz, 2007).

2.2. Intra-household Bargaining Power

In the bargaining model, intra-household bargaining power is assumed to be reflected in the spousal decision-making power (Dong, 2021). Previous studies of intra-household bargaining power use indicators such as household decisions on large purchases (Antman, 2014), decisions on contraception use (Schaner and Das, 2016), and control over household financial resources (Field et al., 2021) as measures of spousal decision-making power. Below, I will explain each of the indicators in detail.

First, Antman (2014) finds that increasing economic resources is significantly associated with higher bargaining power. Using the fixed effect model, the study examines the

relationship between the spouse (women) of the household's employment status and the probability of whether the spouse is involved in the decision-making on large household purchases. The result of the study is that working spouses have a higher likelihood of participating in the decision-making of large household purchases. Although the fixed effect model is applied to control omitted variables that do not change over time, this finding can still have endogeneity. It is because spouses with higher IHBP may also possess a bigger propensity for employment.

Second, the control over women's fertility is one of the critical areas in which spousal decision-making has economic implications (Mikkola, 2005). Research finds a higher fertility rate in countries where women have less power over a decision on contraceptives. In the Indonesian context, the legal perspective prevents married women from being fully sovereign over their reproductive system. National government regulation no 61 of 2014, article 22-23, stated that contraception for women might only be given to legally married women with the consent of the husband (Schaner and Das, 2016). Thus, exploring the relationship between IHBP over the use of women's contraception and FLFP may not represent the true relationship between IHBP and FLFP, despite its relevance. Therefore, the number of children younger than six years old is used as the proxy to measure the relationship between fertility and FLFP. A previous study by Radhakrishnan (2010) finds that women in Indonesia during the President Suharto era were more likely to withdraw from formal employment and participate in the informal sector at the time of having young children.

Third, Field et al. (2021) study how control over households' earnings/financial resources is associated with a shift in gender norms in India, especially related to women's participation in the labor force. Partnering with the government, the researchers create a randomized sampling of the direct cash transfer program. They create an account for women in the sample set and trained on account use for some women who are randomly selected. They observe whether women are more likely to work if the allowance is deposited in the account of the women or male household head. The result shows that women who receive direct deposits and training are more likely to be employed in the formal sectors relative to women who are only offered bank accounts. In the long run, the gender norms also shift and show the less social cost to a husband whose having a working wife.

3.   Research Design

3.1. Data

The study uses data from the Indonesian Demographics and Health Survey (DHS), which is available at https://dhsprogram.com. The Indonesia DHS, funded by USAID and managed by Indonesia's statistics bureau, is nationally representative. The survey provides repeated cross-sectional data on household and individual information on different topics covering health and socio-economic conditions. Indonesia's statistics bureau started conducting DHS in 1987 and repeated it every five years. I only use the most recent DHS 2017 surveys due to unavailable necessary information in the previous surveys, such as the data for decisions on large household purchases, female's healthcare, family visit, and husband's earnings. As a consequence, a panel dimension of the data is unable to be used for this research. Among the DHS 2017 surveys, this paper uses data from the couple's questionnaire, which captured currently married women aged 15-49 in the sampled households from 34 provinces in Indonesia. The eligible number of surveys in urban areas is 4346 observations of women who reside with their husbands at the time of the survey.

Respondents of the DHS's couple questionnaire are the household's female figure (wife). The respondents select one of the following combinations of people with the final say in the household decision-making: respondent alone, together, or spouse (husband) alone. Due to the dynamic of bargaining power in the household's decision-making, the one-sided wife's perspective of household bargaining power, without data triangulation from the husband's point of view, is a limitation of this data. In addition, the presence of the spouse (husband) during the process of filling out the survey may also alter the answer based on the spouse's preference. Besides that, for measuring the FLFP, no data is available to measure those currently unemployed but actively looking for jobs. Thus, I only use employment as a proxy of FLFP.

To proxy the women's socio-cultural factors, I incorporate the gender empowerment index in 2017 into the dataset. Women's socio-cultural factors are expected to capture how the local society looks up to women and appreciates women's role in society. The gender empowerment index (GEI) by Indonesia Statistics is used for this study because it includes women's economic and political participation as indicators (Indonesia Statistics, 2022b). GEI

uses the gender pay gap as an economic indicator and the proportion of women in the local parliament as a political participation indicator.

3.1.1 Variables and Summary Statistics

A detailed description of the dependent, independent, and control variables is presented in the definition of variables (Table 1 in the appendix). The dependent variable is FLFP, a binary variable proxied by married women's employment. The independent variables are the indicators of IHBP. These variables are categorical, representing decisions made by the wife alone, together, or husband alone. The control variables mostly use the factors already utilized by other scholars, such as education, wife's access to the internet, wife's access to transportation, household's wealth, spouse's occupation, and potential caregiver. First, education attainment is a categorical variable, including no education to incomplete primary education, complete primary education, incomplete secondary education, complete secondary education, and higher education. Second, I measure women's access to transportation using the household's vehicle(s) ownership. One vehicle means the household only has one of the following options: a bike, a scooter, or a car. Two vehicles mean the household has 2 of any combination of the vehicle options, and three vehicles have all types of vehicles. Third, I use the DHS wealth index, categorizing households into the poorest, poor, middle, richer, and richest, as a proxy of household wealth. Fourth, the spouse's occupations are categorized into professional, clerical, sales, self-employed, industrial worker, and services. Fifty, I calculate the number of potential caregivers by subtracting the number of household members from the number of children. Sixth, the control variables which has not been used previously but are utilized in this paper are the GEI (score 0-100) and regional effect (34 of Indonesia's provinces).

Table 2: Summary Statistics on the Percentage of Respondents Reporting IHBP Indicators

IHBP Indicators	Wife Alone	Together	Husband Alone
Large Household Purchase	15.08%	61.60%	23.32%
Wife's Healthcare	45.74%	44.06%	10.20%
Family Visit	15.48%	72.72%	11.81%
Husband's Earnings	47.02%	42.07%	10.91%
Average	30.83%	55.11%	14.06%

Table 2 presents summary statistics of each IHBP's indicators. According to the average of the IHBP indicators, 30.83% of respondents report she decides alone, 55.11% report she decides with her spouse, and 14.06% report the spouse decides alone. The table above shows that there is a pattern of respondent's answers in each indicator which in order from higher to lower percentage is "together", followed by "wife alone", and "husband alone". However, these IHBP indicators are weakly correlated (between 0.018-0.29), as shown in Table 3 presented in the appendix.

Table 4: Summary Statistics of All Variables

Variables	Observation	Mean	St. dev.	Median	Minimum	Maximum
FLFP	4,338	0.630	0.483	1	0	1
IHBP Indicators						
Large HH purchase	4,331	2.316	0.992	2	1	3
Wife's healthcare	4,342	1.747	0.895	2	1	3
Family visit	4,336	2.081	0.788	2	1	3
Husband's earning	4,298	1.748	0.918	2	1	3
Female Individual Characteristics						
Female age	4,346	35.548	7.588	36	15	49
Female education	4,346	3.4859	1.140	4	1	5
Access to internet	4,346	0.5216	0.500	1	0	1
Household's Composition & Characteristics						
Number of children (age $\leq$ 5)	4,346	0.6760	1.124	1	0	5
Wealth	4,346	3.6069	1.243	4	1	5
Spouse's education	4,346	3.5214	1.150	4	1	5
Beating justified	4,250	0.2870	0.452	0	0	1
No. potential caregiver	4,346	3.1205	1.900	2	2	20
Vehicle ownership	4,300	1.5753	0.774	2	0	3
Spouse's occupation	4,255	2.1705	1.984	5	0	6
GEI	4,346	68.919	5.431	70	47.880	82.37

The mean (0.6) and median (1) of FLFP in Table 4 suggests that more married women in the sample are working than those not working. All indicators of IHBP confirm the information in Table 2, in which most respondents answered they make household decisions with their spouse (median is 2). The average respondent's age is 35 years. The median of the respondent's and spouse's education attainment is secondary school graduate. On average, 50%

of respondents have had access to the internet in the past year. The median for household wealth is rich households. The median number of children younger than six years old is one child. On average, 28.7% of respondents justified being beaten by their husbands. The median of the potential caregiver is two people. The median number of private vehicles (bike, scooter, or car) owned by the household is two. While the spouse's occupation is controlled, the summary statistics have no meaningful interpretation. The average GEI score of provinces in Indonesia is 68.92.

3.2. Methodology

Given a binary dependent variable of (1) for women participating in the labor force and (0) for women not participating in the labor force, I use a logit regression model for the analysis. Logit regression is based on the logistic function, in which output ranges from 0 to 1. In the context of this paper, the output of the logit regression model presents the predicted probability of married women being employed given their intra-household bargaining power $[P(Y = 1|X)]$. The estimated effect of a change in intra-household bargaining power (X) is the estimated magnitude of change in the probability that married women is employed (Y = 1) as a response to the change in X. The probability function of the logit model is defined as in (Stock and Watson, 2015):

$$f(x) = \frac{e^x}{1 + e^x} = \frac{1}{1 + e^{-x}} , x \in R$$

Based on this logistic function, the logit model of the binary dependent variable Y, having multiple regressors consisting of the independent and control variables, can be expressed by the following relationship (Stock and Watson, 2015):

$$P(Y = 1|x_1, x_2, \ldots, x_n) = F(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)$$
$$= \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}}$$
$$= \frac{e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}}{1 + e^{(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}}$$

Where: $\beta_0, \beta_1, \ldots, \beta_n$ are the model parameters and $x_1, x_2, \ldots, x_1$ are the independent variables that can be both categorical or continuous.

Due to the non-linear characteristics of the logit model parameters, the model uses maximum likelihood as the estimation method of the predicted outcomes. The maximum likelihood estimator (MLE) is normally distributed and consistent as the sample size gets bigger, which allows a similar interpretation of the t-statistics and confidence intervals as the OLS estimation in linear regression. The MLE is the maximum point of the likelihood function. Since the likelihood function is the joint probability distribution treated as a function of the unknown coefficient, the joint probability distribution should first be derived as follows (Stock and Watson, 2015):

$$P(Y_1 = y_1, Y_2 = y_2, \ldots, Y_n = y_n) = \left[p^{(y_1 + \cdots + y_n)}\right] * \left[(1 - p)^{n - (y_1 + \cdots + y_n)}\right]$$

For n independent identically distributed (i.i.d) observations on a Bernoulli random variable.

The MLE of p is the value of p that maximizes the likelihood of the above function when it is treated as a function of the unknown coefficients, which is mathematically expressed (Stock and Watson, 2015):

$$f_{Bernoulli}(p; Y_1, \ldots, Y_n) = p^S (1 - p)^{n - S}, where \ S = \sum_{i=1}^{n} Yi$$

In the logistic regression model, the conditional probability $p_i = \left(1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}\right)^{-1}$. The MLE is conventionally considered as the logarithm of the likelihood function[5] as follows (Stock and Watson, 2015):

$$\ln \left[f_{logit}(\beta_0, \ldots, \beta_k; \ Y_1, \ldots, Y_n | \ X_{1i}, \ldots, X_{ki}, i = 1, \ldots, n) \right]$$

$$= \sum_{i=1}^{n} Y_i \ln \left[\left(1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}\right)^{-1} \right]$$

$$+ \sum_{i=1}^{n} (1 - Y_i) \ln \left[1 - \left(1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_k X_n)}\right)^{-1} \right]$$

However, the result tables of this study present the average marginal effect of the logit regression to simplify the interpretation of the result.

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[5] Also called logit function

4. Results and Discussion

4.1. Results of IHBP Indicators on FLFP

Tables 5 to 8 show how the significance and magnitude of each IHBP indicator on FLFP changes when I include various control variables in the regressions. The control variables introduced in Tables 5-8 are the same for each regression (regression 1-5).

Table 5: Comparisons for Large Household Purchase Decision-Making

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0189	-0.0220	-0.0117	-0.0095	-0.0164
	(-0.92)	(-1.10)	(-0.56)	(-0.46)	(-0.80)
Husband alone	-0.1040***	-0.0898***	-0.0948***	-0.0796***	-0.0869***
	(-4.29)	(-3.83)	(-3.85)	(-3.30)	(-3.62)
Wife's Characteristics:	No	Yes	No	Yes	Yes
Household's Composition:	No	No	Yes	Yes	Yes
Socio-cultural: GEI*Province	-	-	-	-	0.0001*
					(2.22)
Region Effect	No	No	No	No	Yes
Observations	4323	4323	4089	4089	4089

t statistics in parentheses
$^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$

Table 5 reports the estimation result of the relationship between FLFP and intra-household decision-making on large household purchases as the proxy of IHBP. In all regression, the coefficient of "husband alone" is significant at 1%. Regression 1 shows the logit regression of "large purchase" on FLFP without including the control variables. Regression 1 presents that in comparison to a household in which the respondent decides large household purchase alone, a household whose husband decides alone is associated with a 10.4 percentage point drop in the likelihood that the respondent is participating in the labor force. When I introduce control variables on respondent's characteristics in regression 2, the "large purchase" magnitude falls to 8.98 percentage points, holding other factors constant. In regression 3, the control variables of respondent's characteristics are opted out, and the household's composition and characteristics are included. Controlling the household's composition, the "large purchase" magnitude increases to 9.48 percentage points. Regression 4 presents the "large purchase" magnitude when both respondent's characteristics and household composition and characteristics are added. It shows a slightly lower value than in regressions 1-3. Lastly, after controlling for the region effect and the provincial GEI, regression 5 displays that households in which the husband

decides on a large household purchase alone are associated with an 8.69 percentage point drop in the likelihood of the wife's labor force participation, compared to a household which the wife decides alone. To conclude, despite different control variables added[6], the magnitude of the "large purchase" coefficients in the five regressions remain a negative association with FLFP between 7.96 – 10.4 percentage points. The trend of the magnitude change in regression 1-5 is consistent across different IHBP indicators (Table 5-8).

Table 6: Regression Comparison for Wife's Healthcare Decision-Making

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0405***	-0.0381**	-0.0395**	-0.0338**	-0.0409***
	(-2.63)	(-2.53)	(-2.53)	(-2.20)	(-2.68)
Husband alone	-0.1070***	-0.0886***	-0.1050***	-0.0926***	-0.0934***
	(-4.11)	(-3.54)	(-3.96)	(-3.59)	(-3.66)
Wife's Characteristics:	No	Yes	No	Yes	Yes
Household's Composition:	No	No	Yes	Yes	Yes
Socio-cultural: GEI*Province	No	No	No	No	Yes
Region Effect	No	No	No	No	Yes
Observations	4323	4323	4098	4098	4098

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6 shows the decision-making over the respondent's healthcare indicator of IHBP. The results present a similar pattern to Table 5, in which low female IHBP has a negative association with the likelihood of FLFP. However, there is a slight difference in the "wife & husband together" indicator, which is significant in Table 6 but not in Table 5. In regressions 1-5 of Table 6, a household in which husband and wife decide the wife's healthcare together is negatively associated (-3.38 to -4.09 percentage points) with the respondent's likelihood of participating in the labor force, significant at 1% for regressions 1 and 5 and significant at 5% for regressions 2-4. Moreover, the magnitude of the coefficient is more prominent, and the significance is more consistent (at 1%) when the husband is the sole decision-maker of the respondent's healthcare than when the couple decides together. In other words, in the case of control over the female's healthcare, a lower IHBP (from together to husband alone) is not only associated with a higher significance but also a larger magnitude of a negative association between IHBP and FLFP.

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[6] The detail of the control variables (wife's characteristics and household's composition) for Table 5-8 can be seen in apendix 1.

Table 7: Regression Comparison for Decision-Making on Family Visit

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0047	-0.0093	0.0040	0.0040	0.0034
	(-0.23)	(-0.47)	(0.19)	(0.19)	(0.17)
Husband alone	-0.0953***	-0.0623**	-0.0729**	-0.0507*	-0.0472*
	(-3.31)	(-2.26)	(-2.50)	(-1.79)	(-1.68)
Wife's Characteristics:	No	Yes	No	Yes	Yes
Household's Composition:	No	No	Yes	Yes	Yes
Socio-cultural: GEI*Province	No	No	No	No	Yes
Region Effect	No	No	No	No	Yes
Observations	4328	4328	4093	4093	4093

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Next, Table 7 exhibits the decision-making over family visits as an indicator of IHBP. Though Table 7 still shows a significant negative association between lower IHBP and FLFP, differing from Tables 5 and 6, Table 7 indicates an inconsistency in the magnitude of "family visit" on FLFP (between 4.72-9.53 percentage points. The high fluctuation of the family visit coefficients when I introduce different control variables shows that not only does the level of IHBP (wife alone, together, or husband alone) matter in determining its association with FLFP, but also the seriousness of the decision being made. More major decisions, such as large household purchases and female healthcare, show more consistent, significant, and larger magnitude than minor decisions such as family visits.

Table 8: Regression Comparison for Decision-Making on Husband's Earning

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	0.0557***	0.0409***	0.0561***	0.0517***	0.0380**
	(3.58)	(2.68)	(3.55)	(3.32)	(2.43)
Husband alone	-0.0198	-0.0191	-0.0338	-0.0204	-0.0325
	(-0.78)	(-0.78)	(-1.33)	(-0.82)	(-1.32)
Wife's Characteristics:	No	Yes	No	Yes	Yes
Household's Composition:	No	No	Yes	Yes	Yes
Socio-cultural: GEI*Province	No	No	No	No	Yes
Region Effect	No	No	No	No	Yes
Observations	4328	4328	4093	4093	4093

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The relationship between FLFP and IHBP indicator in Table 8 (control over husband's earnings) is different from the previous three tables, which shows that a lower wife's IHBP (wife and husband decide together) is positively associated with FLFP. In comparison to a household in which the wife is solely responsible for the husband's earnings, a household in which the couple decides together on the spending of the husband's earnings is associated with a 3.80-5.57 percentage points increase in the likelihood that the wife participates in the labor force, significant at 1% for regression 1-4 and 5% for regression 5. However, when the husband decides alone on his earning spending, its association with FLFP is not significantly different from when the wife decides alone.

4.2. Discussion and Analysis

According to the results above, three of the four IHBP indicators (*large household purchases, wife's healthcare, and family visits*) show a negative relationship with FLFP. Only the *husband's earning* presents a contrasting result. I will elaborate on the finding's magnitude and significance in detail with five core points. First, Table 5-8 shows a similar trend when different control variables are added. Second, *women's healthcare* is significant[7] at a higher level[8] of IHBP than the other IHBP indicators (*large household purchase* and *family visit*). Third, the higher importance of the household decision, the larger the IHBP magnitude on FLFP. Fourth, *large household purchase, wife's healthcare*, and *family visit* have a low correlation, but each has a significant positive relationship with FLFP. Fifth, a lower IHBP level on *husband's earning* is associated with an increase in FLFP, which contrasts with the existing literature.

4.2.1. The Magnitude of the IHBP on FLFP for Different Control Variables

As the trend is almost identical for all IHBP indicators, I will use the Table 5 result on the *large household purchase* to represent the other indicators on the observation of magnitude change for different control variables. To recall the results, for "husband alone", the *large household purchase*'s coefficients are significant at 1%. However, there are variations in the magnitude of the relationship when different control variables are added. The *large household purchase*'s coefficient is lower when the wife's characteristics are controlled (8.98 pp) than when

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[7] In comparison to the base category: "wife alone"
[8] The three IHBP levels are: wife alone, wife and husband together, and husband alone. Women's healthcare is significant at wife and husband together and husband alone while the other only significant at the level of husband alone.

the household composition is controlled (9.48 pp). Meaning, female characteristics have a higher correlation to IHBP than household composition. The result is aligned with a comparison study between factors associated with FLFP in urban and rural areas in China (Barrett et al., 1991). In urban areas, FLFP is more closely related to female characteristics, while in rural areas, it is more related to social demographic factors such as sex ratio and household structure. From the labor demand perspective, labor environment in urban areas has more professional-works opportunities for women with strong characteristics (i.e. higher education and access to the internet). On the demand side, empowered females are more likely to marry a male who will respect and appreciate their individual choices, including participating in the labor force (Fales et al., 2016). Furthermore, a higher female educational attainment means a higher opportunity cost to be out of the labor market (Ejaz, 2007). For example, in the case of women with the same number of toddlers but different education levels, we can expect that the one with higher education will be more likely to participate in the labor market.

Next, when I control the female characteristics and household composition, the marginal effect of "large household purchase" is lower (7.96 pp) than when I add the two control variables separately. The results are expected since more IHBP's marginal effects are absorbed as the number of the control variables increases. Finally, the last regression in Table 4 shows a higher magnitude of "large household's purchase" (8.69 pp) when the GEI as a representation of socio-cultural aspects and region is controlled. Although variable GEI is significant at 10%, the magnitude is shallow (0.01 pp). The result may represent how female participation in politics in urban Indonesia is still not effective in addressing women's issues, including FLFP (Devlin and Elgie, 2008).

4.2.2. The Decision over Women's Healthcare on FLFP

The decision over the wife's healthcare is the most "sensitive" IHBP indicator because, compared to wife alone, its coefficient is significant (at 5%) when wife and husband decide together. In contrast, the other IHBP indicators are significant when the husband decides alone. Its significance and magnitude also increase from a 4 pp drop (sig. at 5%) when husband and wife decide together to a 9 pp drop (sig. At 1%) when husband decides alone. This trend shows the importance of female's bargaining power in the decision-making over her healthcare for increasing the probability of FLFP in urban Indonesia. In general terms, the result implies the assumption that a woman will be more likely to go to healthcare facilities if she does not involve

her husband in the decision-making. Women who visit healthcare facilities are more likely to be healthier. Healthier women are more likely to participate in the labor force. In the urban context, women, especially in poor households, are more vulnerable to urban health risks such as diarrhoeal and respiratory illness (McMichael, 2000). On top of that, one of the primary considerations for visiting the healthcare facilities in Indonesian cities is the lack of financial resources, especially for those who work in the informal sector without health insurance provisions (Maulany, Dianingati, and Annisaa, 2021). With limited financial resources, in the intra-household bargaining discussion, the husband's healthcare can be assumed to be prioritized. The assumption is based on the Indonesian culture in which the husband is most likely to be the main income generator of the household. On the other hand, when the household's condition allows the woman to decide to access healthcare facilities, she is most likely to be healthier to participate in the labor force.

4.2.3. Different Levels of Household Decisions: Significance, Direction, and Magnitude

Major decisions, such as decisions for large household purchases and female healthcare, are more consistent, more significant, and have a greater magnitude than minor decisions, such as family visits. Using regression 5 of Tables 5 to 8[9], the magnitude of *family visit* (Table 7) is about half (4.72 pp) of the magnitude of *large household purchases*[10] (8.69 pp) and *women's healthcare*[11] (9.34 pp). The significance also drops from 1% for *large household purchase* and *women's healthcare* to 10% for family visits. The dropping of IHBP's magnitude and significance highlight the relevance of various levels of household decisions as IHBP indicators. Moreover, the correlations between IHBP indicators are low despite all moving in the same direction (positively association) in their relationship with FLFP. Although little reliable study is available, possible reasoning for the finding is that each household has a different indicator of women's IHBP that does not overlap. In other words, in a household, a low IHBP in one indicator does not imply low IHBP on the other. However, the presence of her spouse or other household members when the survey is conducted may alter the respondent's answers and become a factor in the diversity of the responses.

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[9] For the summary of the comparisons, check Table 9 in apendix 1
[10] Table 5
[11] Table 6

4.2.4. Contrasting Result for Control over Husband's Earnings

The direction of the coefficient for control over the husband earnings contrasts with the other 3 IHBP indicators. While the other IHBP indicators have a positive association with FLFP, a lower IHBP for decision over husband earnings[12] increases the probability of FLFP (3.80-5.57 pp[13]). The academic findings (Mammen and Paxon, 2000; Mahmud & Bidisha, 2018; and Field et al., 2021) on control over household resources, including earnings, mainly present a positive association between higher female control over household resources with higher FLFP. Referring back to Utomo (2004), the gender occupational segregation and wage disparity may have discouraged women from participating in the labor force. In addition, the reasoning for the finding may also be related to the cultural aspect. However, this reasoning has not been explored much by scholars. Based on personal observation, married women who decide to become stay-at-home wives generally act as the house manager. She will manage finances, cook, clean the house, and sometimes decide what the husband will wear to work. The finances management includes managing all the household's earnings (which is the husband's income) and the household's spending for groceries, electricity bills, children's school fees, and more.

Not only shown at the household level, but a more extensive scope of company level also acknowledges women's role as the household manager. Some public institutions, such as police, army, and state-owned enterprises, directly transfer most/all of their male employee's wages to the account of their wife. For example, Gorontalo is one of the provinces implementing direct transfer to male employees' wives (BBC Indonesia, 2012). Not only in small and more traditional cities and provinces, large state-owned enterprises in Jakarta, such as Bank Mandiri and Wijaya Karya, also implement such policies. As the wife can express her self-actualization/power through domestic matters, she may not find participating in the labor force appealing. Therefore, it reflects this study's finding that women who decide household earnings together with their husbands are more likely to participate in the labor force than those who are the sole decision-makers of the household income. However, for households in which the husband decides alone, the probability of FLFP is not significantly different from wife alone. For the "husband alone", the result may reflect a similar phenomenon to other studies in which a weak women's IHBP on household earning is associated with low FLFP.

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[12] The base category is "wife alone"
[13] Significant at 1% for regressions 1-4 and at 5% for regression 5

5. Conclusion

To summarize, I examine the relationship between women's intra-household bargaining power and married women's labor force participation in Indonesian cities by highlighting the significance and magnitude of the relationship. I observe the relationship in different conditions using various types and levels of IHBP indicators and control variables. The research data use 4346 observations from the 2017 DHS couple questionnaires, which are processed through logit regression. The first finding is that a lower IHBP (*large household purchases, wife's healthcare, and family visits*) is statistically significant to be associated with a lower probability of FLFP, except for the *husband's earnings,* which shows the opposite result. Second, the women's characteristics correlate more with IHBP than household characteristics. Third, as an indicator of IHBP, women'*s healthcare* is the most "sensitive" indicator because it is significant at the 2 IHBP levels. Fourth, a more critical household decision is associated with a higher significance and larger magnitude of IHBP. Fifth, The indicators of IHBP are not highly correlated with each other, but all of them are significantly associated with FLFP. The policy implication of the research is to consider the different types and levels of IHBP indicators in the urban labor market policymaking process. It is because each indicator has a significant relationship with FLFP, and each represents different challenges married women face concerning their participation in the labor force.

My research limitations hinder a more extensive perspective on the result and more reliable argumentations in the discussion sections. Further research using a qualitative method will enhance the discussions on the cultural aspect of the result on *husband's earnings* (on the household and corporate/government institution levels). In addition, a qualitative study might help explain the higher magnitude of IHBP in the fifth of Table 5 when GEI and region are controlled. Some results may also have been altered using more recent data. For example, the Indonesian government are now providing free public healthcare (BPJS), which may increase the women's IHBP in deciding on their healthcare and thus shift the result for *women's healthcare*. Lastly, a following up research can explore to what extent the different levels of IHBP are crucial to be included in household-level studies.

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Appendix

Table 1: Definition of Variables

Concepts	Variables	Indicators	Measurements
Female Labor Force Participation (Dependent Variable)	Married Women's Labor Force Participation	Married women's employment	Dummy variable (1) or not (0) married women are employed.
Bargaining Power (Independent Variable)	Spousal Decision-making Power	Spending decisions over husband's earning	Dummy variable (1) or not (0) wife decides spending on husband's earning
		Spending decisions on large household purchases	Ordered category: husband decision, Joint decision, wife's decision
		Decision on wife's healthcare	Ordered category: husband decision, Joint decision, wife's decision
Demographic Characteristics (Control Variable)	Respondent's Characteristics	Women's education attainment	Ordered category: No education, incomplete primary, completed primary, incomplete secondary, complete secondary, higher
		Woman's age	The respondent's age
		Women's access to the internet	Binary variable (1) or not (0) women access the internet in the last year
	Household's composition	Household wealth index	Ordered category: poorest, poorer, middle, richer, richest
		Number of young children	Number of children five years or younger
		Husband's education attainment	Ordered category: No education, incomplete primary, completed primary, incomplete secondary, complete secondary, higher
		Beating justified	Binary variable (1) or not (0) spouse beating the respondent for any reason is justified
		Vehicle ownership/ Access to transport	Categorical variables of the number of private vehicles (bikes, scooters, cars) owned by the household
		Potential caregiver	Household member(s) who are not the children of the couple
		Spouse's occupation	Categorical variables of the type of spouse's occupations
Local socio-cultural factors (Control variable)	Women in the local parliament and the local gender pay gap	Province's gender empowerment index	Score from 0 (indicate most inequality) to 100 (most equality between men and women) points

Table 2: Summary Statistics on the Percentage of Respondents Reporting IHBP Indicators

IHBP Indicators	Wife Alone	Together	Husband Alone
Large Household Purchase	15.08%	61.60%	23.32%
Wife's Healthcare	45.74%	44.06%	10.20%
Family Visit	15.48%	72.72%	11.81%
Husband's Earnings	47.02%	42.07%	10.91%
Average	30.83%	55.11%	14.06%

Table 3: Correlation between IHBP Indicators

	Healthcare	Large Purchase	Family Visit	Husband's Earning
Healthcare	1.0000			
Large Purchase	0.2444	1.0000		
Family Visit	0.2437	0.2865	1.0000	
Husband's Earning	0.2251	0.2912	0.1813	1.0000

Table 4: Summary Statistics of All Variables

Variables	Observation	Mean	St. dev.	Median	Minimum	Maximum
FLFP	4,338	0.630	0.483	1	0	1
IHBP Indicators						
Large HH purchase	4,331	2.316	0.992	2	1	3
Wife's healthcare	4,342	1.747	0.895	2	1	3
Family visit	4,336	2.081	0.788	2	1	3
Husband's earning	4,298	1.748	0.918	2	1	3
Female Individual Characteristics						
Female age	4,346	35.548	7.588	36	15	49
Female education	4,346	3.4859	1.140	4	1	5
Access to internet	4,346	0.5216	0.500	1	0	1
Household's Composition & Characteristics						
Number of children (age ≤ 5)	4,346	0.6760	1.124	1	0	5
Wealth	4,346	3.6069	1.243	4	1	5
Spouse's education	4,346	3.5214	1.150	4	1	5
Beating justified	4,250	0.2870	0.452	0	0	1
No. potential caregiver	4,346	3.1205	1.900	2	2	20
Vehicle ownership	4,300	1.5753	0.774	2	0	3
Spouse's occupation	4,255	2.1705	1.984	5	0	6
GEI	4,346	68.919	5.431	70	47.880	82.37

Table 5: Comparisons for Large Household Purchase Decision-Making

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0189	-0.0220	-0.0117	-0.0095	-0.0164
	(-0.92)	(-1.10)	(-0.56)	(-0.46)	(-0.80)
Husband alone	-0.1040***	-0.0898***	-0.0948***	-0.0796***	-0.0869***
	(-4.29)	(-3.83)	(-3.85)	(-3.30)	(-3.62)
Wife's Characteristics:					
Wife's Education (Base: incomplete primary school)					
Completed primary		0.0232		0.0121	0.0132
		(0.64)		(0.32)	(0.35)
Incomplete secondary		0.0419		0.0440	0.0336
		(1.19)		(1.16)	(0.90)
Complete secondary		0.0354		0.0739	0.0569
		(1.02)		(1.91)	(1.50)
Higher		0.2460***		0.2990***	0.2770***
		(6.78)		(7.29)	(6.78)
Wife's current age		0.0078***		0.0054***	0.0055***
		(7.81)		(4.71)	(4.77)
Access to Internet		0.0391**		0.0483*	0.0591**
		(2.21)		(2.55)	(3.14)
Household's Composition & Characteristics:					
Children (age 5 & under)			-0.0891***	-0.0704***	-0.0682***
			(-8.56)	(-6.84)	(-6.64)
Wealth	No	No	Yes	Yes	Yes
Husband's education (Base: incomplete primary school)					
Complete primary			0.0253	0.0252	0.0360
			(0.73)	(0.79)	(1.13)
Incomplete secondary			-0.0132	-0.0173	-0.0074
			(-0.39)	(-0.55)	(-0.23)
Complete secondary			-0.0229	-0.0642*	-0.0507
			(-0.70)	(-2.03)	(-1.59)
Higher			0.0550	-0.108**	-0.0973*
			(1.43)	(-2.66)	(-2.40)
Beating wife justified			0.0402*	0.0427**	0.0448**
			(2.43)	(2.63)	(2.76)
Potential caregiver available			0.0056		
			(1.29)		
Access to transportation (Base: no access)					
One private vehicle			0.0616	0.0671*	0.0435
			(1.78)	(1.99)	(1.31)
Two private vehicles			0.0723*	0.0832*	0.0426
			(1.99)	(2.36)	(1.21)
Interaction GEI*Province					0.0001*
					(2.22)
Husband's occupation	No	No	Yes	Yes	Yes
Region Effect	No	No	No	No	Yes
Observations	4323	4323	4089	4089	4089

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Regression Comparison for Wife's Healthcare Decision-Making

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0405*** (-2.63)	-0.0381** (-2.53)	-0.0395** (-2.53)	-0.0338** (-2.20)	-0.0409*** (-2.68)
Husband alone	-0.1070*** (-4.11)	-0.0886*** (-3.54)	-0.1050*** (-3.96)	-0.0926*** (-3.59)	-0.0934*** (-3.66)
Wife's Characteristics:					
Wife's Education (Base: incomplete primary school)					
Completed primary		0.0263 (0.73)		0.0146 (0.38)	0.0142 (0.38)
Incomplete secondary		0.0459 (1.30)		0.0476 (1.26)	0.0357 (0.96)
Complete secondary		0.0401 (1.16)		0.0789** (2.05)	0.0600 (1.58)
Higher		0.2530*** (6.98)		0.3040*** (7.48)	0.2790*** (6.85)
Wife's current age		0.0079*** (7.87)		0.0055*** (4.73)	0.0056*** (4.83)
Access to Internet		0.0369** (2.09)		0.0471** (2.49)	0.0585*** (3.10)
Household's Composition & Characteristics:					
Children (age 5 & under)			-0.0895*** (-8.59)	-0.0707*** (-6.84)	-0.0684*** (-6.65)
Wealth	No	No	Yes	Yes	Yes
Husband's education (Base: incomplete primary school)					
Complete primary			0.0260 (0.75)	0.0254 (0.80)	0.0364 (1.14)
Incomplete secondary			-0.0126 (-0.37)	-0.0176 (-0.56)	-0.0068 (-0.21)
Complete secondary			-0.0210 (-0.64)	-0.0646** (-2.05)	-0.0511 (-1.60)
Higher			0.0572 (1.48)	-0.1080*** (-2.67)	-0.0973** (-2.40)
Beating wife justified			0.0387** (2.33)	0.0415** (2.55)	0.0423*** (2.60)
Potential Caregiver Available			0.0059 (1.35)		
Access to transportation (Base: no access)					
One private vehicle			0.0617* (1.80)	0.0670** (2.01)	0.0438 (1.33)
Two private vehicles			0.0706** (1.96)	0.0813** (2.33)	0.0408 (1.17)
Interaction GEI*Province					0.0001** (2.18)
Husband's occupation	No	No	Yes	Yes	Yes
Region Effect	No	No	No	No	Yes
Observations	4323	4323	4098	4098	4098

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7: Regression Comparison for Decision-Making on Family Visit

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	-0.0047	-0.0093	0.0040	0.0040	0.0034
	(-0.23)	(-0.47)	(0.19)	(0.19)	(0.17)
Husband alone	-0.0953***	-0.0623**	-0.0729**	-0.0507*	-0.0472*
	(-3.31)	(-2.26)	(-2.50)	(-1.79)	(-1.68)
Wife's Characteristics:					
Wife's Education (Base: incomplete primary school)					
Completed primary		0.0248		0.0128	0.0120
		(0.69)		(0.33)	(0.32)
Incomplete secondary		0.0422		0.0435	0.0317
		(1.20)		(1.15)	(0.85)
Complete secondary		0.0361		0.0737	0.0552
		(1.05)		(1.91)	(1.46)
Higher		0.2460***		0.2980***	0.2740***
		(6.78)		(7.28)	(6.71)
Wife's current age		0.0078***		0.0054***	0.0055***
		(7.74)		(4.66)	(4.79)
Access to Internet		0.0383**		0.0482**	0.0593***
		(2.16)		(2.55)	(3.15)
Household's Composition & Characteristics:					
Children (age 5 & under)			-0.0891***	-0.0701***	-0.0678***
			(-8.56)	(-6.78)	(-6.58)
Wealth	No	No	Yes	Yes	Yes
Husband's education (Base: incomplete primary school)					
Complete primary			0.0235	0.0243	0.0340
			(0.68)	(0.77)	(1.07)
Incomplete secondary			-0.0149	-0.0184	-0.0094
			(-0.44)	(-0.58)	(-0.30)
Complete secondary			-0.0245	-0.0656**	-0.0542*
			(-0.75)	(-2.08)	(-1.70)
Higher			0.0521	-0.1090***	-0.1000**
			(1.35)	(-2.69)	(-2.47)
Beating wife justified			0.0385**	0.0412**	0.0431***
			(2.32)	(2.53)	(2.65)
Potential Caregiver Available			0.0069		
			(1.60)		
Access to transportation (Base: no access)					
One private vehicle			0.0607*	0.0667**	0.0442
			(1.77)	(2.00)	(1.35)
Two private vehicles			0.0687*	0.0808**	0.0419
			(1.91)	(2.32)	(1.20)
Interaction GEI*Province					0.0001**
					(2.20)
Husband's occupation	No	No	Yes	Yes	Yes
Region Effect	No	No	No	No	Yes
Observations	4328	4328	4093	4093	4093

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8: Regression Comparison for Decision-Making on Husband's Earning

	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP
IHBP (Base: Wife alone)					
Wife & husband together	0.0557***	0.0409***	0.0561***	0.0517***	0.0380**
	(3.58)	(2.68)	(3.55)	(3.32)	(2.43)
Husband alone	-0.0198	-0.0191	-0.0338	-0.0204	-0.0325
	(-0.78)	(-0.78)	(-1.33)	(-0.82)	(-1.32)
Wife's Characteristics:					
Wife's Education (Base: incomplete primary school)					
Completed primary		0.0254		0.0152	0.0174
		(0.70)		(0.40)	(0.47)
Incomplete secondary		0.0414		0.0448	0.0350
		(1.18)		(1.18)	(0.94)
Complete secondary		0.0351		0.0759**	0.0591
		(1.02)		(1.98)	(1.56)
Higher		0.2470***		0.3030***	0.2810***
		(6.78)		(7.43)	(6.88)
Wife's current age		0.0078***		0.0055***	0.0057***
		(7.77)		(4.73)	(4.88)
Access to Internet		0.0403**		0.0511***	0.0619**
		(2.26)		(2.69)	(3.27)
Household's Composition & Characteristics:					
Children (age 5 & under)			-0.0903***	-0.0713***	-0.0688***
			(-8.64)	(-6.87)	(-6.67)
Wealth	No	No	Yes	Yes	Yes
Husband's education (Base: incomplete primary school)					
Complete primary			0.0275	0.0268	0.0374
			(0.79)	(0.84)	(1.17)
Incomplete secondary			-0.0145	-0.0192	-0.0081
			(-0.43)	(-0.61)	(-0.25)
Complete secondary			-0.0243	-0.0673**	-0.0536*
			(-0.74)	(-2.12)	(-1.67)
Higher			0.0545	-0.1100***	-0.0992**
			(1.41)	(-2.72)	(-2.43)
Beating wife justified			0.0385**	0.0419**	0.0440***
			(2.31)	(2.57)	(2.70)
Potential Caregiver Available			0.0061		
			(1.40)		
Access to transportation (Base: no access)					
One private vehicle			0.0578*	0.0639*	0.0419
			(1.68)	(1.91)	(1.27)
Two private vehicles			0.0715**	0.0832**	0.0444
			(1.98)	(2.38)	(1.26)
Interaction GEI*Province					0.0001**
					(2.06)
Husband's occupation	No	No	Yes	Yes	Yes
Region Effect	No	No	No	No	Yes
Observations	4328	4328	4093	4093	4093

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Comparisons for Different IHBP Indicators

	FLFP	FLFP	FLFP	FLFP
	Large HH Purchase	*Healthcare*	*Family Visit*	*Husband's Earning*
IHBP (Base: Wife alone)				
Wife & husband together	-0.0164	-0.0409***	0.0034	0.0380**
	(-0.80)	(-2.68)	(0.17)	(2.43)
Husband alone	-0.0869***	-0.0934***	-0.0472*	-0.0325
	(-3.62)	(-3.66)	(-1.68)	(-1.32)
Wife's Characteristics:				
Wife's Education (Base: incomplete primary school)				
Completed primary	0.0132	0.0142	0.0120	0.0174
	(0.35)	(0.38)	(0.32)	(0.47)
Incomplete secondary	0.0336	0.0357	0.0317	0.0350
	(0.90)	(0.96)	(0.85)	(0.94)
Complete secondary	0.0569	0.0600	0.0552	0.0591
	(1.50)	(1.58)	(1.46)	(1.56)
Higher	0.2770***	0.2790***	0.2740***	0.2810***
	(6.78)	(6.85)	(6.71)	(6.88)
Wife's current age	0.0055***	0.0056***	0.0055***	0.0057***
	(4.77)	(4.83)	(4.79)	(4.88)
Access to Internet	0.0591***	0.0585***	0.0593***	0.0619***
	(3.14)	(3.10)	(3.15)	(3.27)
Household's Composition & Characteristics:				
Children (age 5 & under)	-0.0682***	-0.0684***	-0.0678***	-0.0688***
	(-6.64)	(-6.65)	(-6.58)	(-6.67)
Wealth	No	No	Yes	Yes
Husband's education (Base: incomplete primary school)				
Complete primary	0.0360	0.0364	0.0340	0.0374
	(1.13)	(1.14)	(1.07)	(1.17)
Incomplete secondary	-0.0074	-0.0068	-0.0094	-0.0081
	(-0.23)	(-0.21)	(-0.30)	(-0.25)
Complete secondary	-0.0507	-0.0511	-0.0542	-0.0536
	(-1.59)	(-1.60)	(-1.70)	(-1.67)
Higher	-0.0973**	-0.0973**	-0.1000**	-0.0992**
	(-2.40)	(-2.40)	(-2.47)	(-2.43)
Beating wife justified	0.0448***	0.0423***	0.0431***	0.0440***
	(2.76)	(2.60)	(2.65)	(2.70)
Access to transportation (Base: no access)				
One private vehicle	0.0435	0.0438	0.0442	0.0419
	(1.31)	(1.33)	(1.35)	(1.27)
Two private vehicles	0.0426	0.0408	0.0419	0.0444
	(1.21)	(1.17)	(1.20)	(1.26)
Husband's occupation	Yes	Yes	Yes	Yes
Region Effect	Yes	Yes	Yes	Yes
Observations	4089	4098	4093	4076

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$