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Individual property rights and bargaining outcomes: evidence from intra-household asset data

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Individual property rights and bargaining outcomes: evidence from intra-household asset data

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Abstract

This paper examines the determinants of the decision-making process among couples. Using an expanded conceptualization of decision-making, this paper explores factors that affect convergence or divergence between spousal perceptions. In particular, the paper considers the impact of women's property status, specifically, their ownership of a house or land, on decision-making within households using data from the Karnataka Household Asset Survey, 2010-11, which collected individual-level asset ownership and valuation information. The results suggest that property ownership improves women's their autonomy in decision making but does not impact egalitarianism in decision-making between couples.

Keywords: Karnataka, women, assets, egalitarian, decision-making.

1.   Introduction

The differing roles and responsibilities of men and women in households are largely reflective of gendered norms, expectations and power structures, both within the household and the larger society. In patriarchal societies, power structures are highly imbalanced and mostly render women with little voice in the household decision-making process. Evidence shows that when women are able to participate in decision-making, it impacts an array of welfare outcomes including improving the education, health and nutritional status of their children (Allendorf, 2007; Duflo, 2003; Park, 2007; Sethuraman, 2008; Smithet al, 2003). Beyond these outcomes which are instrumental in nature, true gender equality can be achieved only if the spousal relationship is characterized by equal participation of the spouses in decision-making.

The decision-making and empowerment literature by and large focuses on the decision-making choices reported by the woman in order to assess the degree of her participation in household decisions. This approach suffers from the limitation of considering only one half of the balance of power within the household. In reality, for every woman who reports a certain degree of involvement in decision-making, there are male members of the household, typically the spouse, who has a view on the same decision, which could differ from what the woman reports. Examining these viewpoints simultaneously would clearly lead to a better understanding of the household power structure by enabling assessment of the extent of agreement and disagreement between couples.

Few studies have explored men's perceptions on women's autonomy and on women's participation in decisions pertaining to their husbands in analyzing household decision-making. In the Indian context, (Jejeebhoy, 2002) analyses the views of both spouses on the wife's involvement in household decision-making in two states, Tamil Nadu and Uttar Pradesh.[2]The main findings from this study suggest that there is only minimal convergence between the couples' responses where women's autonomy is concerned. The National Family and Health Survey 3, 2005-06 (NFHS 3) in India, equivalent to the Demographic Health Survey (DHS) in other countries, acquires data on control over one's own as well spouse's earnings for both men

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[2]The decisions considered here are purchase of food, jewellery and major household goods.

and women. The results show that while 68 percent of currently married women participate in the decision about the use of their husbands' earnings, the participation of currently married men in the decision about their wives' earnings is much higher at 86 percent. Based on data acquired from both spouses in a large sample in the United States of America, Coleman &Straus(1986) classify couples into four groups of marital power structure – divided autonomy, equalitarian, male-dominated and female-dominated.This categorization is based on respondents' reported involvement in household decisions where divided autonomy is defined as couples where the husband and wife have the final say in different sets of decisions. Equalitarian outcome is when couples who make most of the decisions jointly. The study finds that equalitarian couples are characterized by a relatively higher degree of marital conflict (disagreement on a set of five questions) but also a low incidence of marital violence.

These studies give recognition to the fact that among couples, husbands are key players with whom women negotiate decisions in the household, and demonstrate that spouses need not always be in agreement about their perceived roles in the decision-making processes. However, to the best of the authors' knowledge, there is no empirical work that has examined what factors determine the extent to which spouses agree over the decision-making process. The main contribution of this paper is to use an expanded conceptualization of decision-making and understand what determines convergence between spousal perceptions or the lack of it. In particular, we are interested in the impact of women's property status, specifically, their ownership of a house or land, on decision-making within households.

The paper is organized as follows. In the following section, we present a brief review on the importance of assets for women. This is followed by a background on the state of Karnataka and the sample districts, the survey methods and description of the sample for analysis. Section 4 discusses the construction of the dependent variables as well as the main independent variable of interest, *i.e.*, asset ownership. In Section 5, the empirical specification is provided followed by the results in Section 6. Section 7 concludes the paper.

2. Women and assets

It is widely recognized that improving women's access to assets leads to well-being at the individual and household levels; improving the health and educational status of their children (Doss, 2006; Katz & Chamorro, 2003, Duflo, 2003), ability to exert greater control over their income (Friedemann-Sánchez, 2006), and reducing their chances of experiencing abuse (Bhattacharyya, Bedi, & Chhachhi, 2011; Panda & Agarwal, 2005). Owning assets is also seen as an empowering process for women since it can enhance their participation in decision-making and reduce the limitations on their bargaining power within households (Agarwal, 1994; Jones et al., 2010). Empirical evidence establishing these links particularly in the South Asian context, however, is rather limited and as mentioned earlier, based solely on women's perceptions of their involvement in decision-making. Garikipati (2009)finds in a survey of 291 households in Andhra Pradesh that women labourers with access to productive assets including agricultural land, livestock, sewing machines and small retail shops have greater autonomy in their decision-making within the household and in labour markets.[3]Focusing on housing in the urban informal settlements of Chandigarh, a city in North India, Datta (2006) finds that the government's joint-titling policy has had several beneficial outcomes for women including enhancing their participation in household decision-making, their access to knowledge, sense of self-esteem and relative status within the household.Using the 2001 Nepal Demographic and Health Survey, (Allendorf, 2007)finds that women who own land are significantly more likely to have the final say in household decisions.

This paper adds to the literature by examining the relationship between asset ownership and decision-making patterns among couples in the state of Karnataka in India by using a unique dataset, the Karnataka Household Asset Survey (KHAS 2010-11) that has data on asset ownership at the individual level, in addition to data on individuals' participation in their own as well as their spouses' decision-making.

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[3]The study also found that asset ownership, however, did not influence women's control over household income or lower their share of household chores.

3.   Context, Data, and Methods

Karnataka, located in south-west India, is the eighth largest state in the country covering 5.83 percent of the total geographical area and has a population of 61.1 million(Government of India, 2011). The state has 30 districts that lie across four broad agro-climatic regions – the Northern *Maidan* (plateau), the Southern *Maidan*, the Western Ghats or *Malnad* (mountainous region) and the Coastal Region, each with distinct characteristics (Table 1). The state of Karnataka was formed in 1956 through an amalgamation of Kannada speaking areas from five territories – Hyderabad Karnataka, Bombay Karnataka, former Madras Presidency, Old Mysore state, and a portion of Coorg state (Government of Karnataka, 2006).[4] These regions were fairly diverse not only in their political and administrative structures, but also in their levels of socio-economic development. This historical legacy is one of the contributing factors to the inter-district disparities in social and economic development. According to a composite index prepared by the Government of Karnataka, Hyderabad Karnataka had the maximum number of backward districts due to a combination of governance failures under the princely state of Hyderabad and continuous periods of drought experienced in more recent times (Government of Karnataka, 2006).

KHAS was undertaken in eight districts across all four regions of the state.[5] A few demographic patterns are similar across the selected districts albeit with differing degrees of variations between rural and urban areas. In all districts, female literacy is better in urban areas than in rural areas with the highest difference in Mysore district and the lowest in Dakshina Kannada district. Women's labour force participation rate is higher in rural areas than in urban areas, but in no district is it more than 50 percent. This could potentially impact women's social status as it limits their access to employment and income.

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[4]Hyderabad Karnataka and Bombay Karnataka fall in Northern *Maidan*, while the Southern *Maidan* comprises of districts that belonged to former Madras Presidency and Old Mysore state. The coastal districts include erstwhile Dakshina Kannada (including the current Udupi district) and Uttara Kannada districts, and the Western Ghats includes former Coorg state in addition to the districts of Shimoga, Hassan and Chikkamagalur.

[5] The districts of Dakshina Kannada and Udupi were considered as one unit to represent the coastal regions. While disaggregated secondary data is presented for both these districts, all the estimates based on the survey data refer to the composite unit and are presented as Dakshina Kannada. Gulbarga district in the survey included the current Yadgir district as well.

Districts in Hyderabad Karnataka (Bidar and Gulbarga) have the worst human development indices while the coastal districts and Bengaluru have the best. In Bengaluru, this is largely driven by the income and education components of the human development index while in the coastal districts it is driven by the education and health components (Government of Karnataka 2006). Gulbarga and Bidar also have the highest gender differentials in agricultural wages in rural areas. These differentials are, however, not low even in economically better off districts such as Dakshina Kannada, Udupi and Mysore.

Sex ratio is a critical indicator of discrimination against women and it reflects diverse effects including female foeticide, poor access to health care and lower nutritional status for women and girls. At the state level, urban sex ratio is lower than the rural sex ratio but there are some variations across the districts. At 912 women per 1,000 men, Bengaluru city has the worst sex ratio even as its share in the net state domestic product at 23 percent and human development index at 0.753 are the highest in the state. Not surprisingly, the sex ratio is the highest in the coastal districts. It is also the only region in Karnataka where matrilineality is practiced among certain communities (such as Bunts and Billavas) while the rest of the state is largely patrilineal. The KHAS data is state-representative with a total sample of 4,110 households. A stratified random sampling design was followed with the agro-climatic regions forming the first stratum. Districts were randomly selected within each region. Villages and electoral booths in rural and urban areas respectively formed the primary sampling unit from which the households were selected.[6]

To the best of the authors' knowledge, KHAS represents the first large household survey in India that has collected individual-level asset data. There is information (incidence and value) for all physical assets (principal residence and other real estate, agricultural land, livestock, agricultural tools and equipment, non-farm businesses and their assets, and consumer durables) owned by household members. Standard survey practices do not ask who within the household owns the asset; the household is presumed to be the owner.

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[6] For further details on the sampling methodology, refer to (Swaminathan, Suchitra, & Lahoti, 2011).

Another innovative feature of the KHAS survey design is that up to two individuals in each household – typically one male and one female – were interviewed and asked by and large the same set of questions. This is a break from standard survey practices that interview only one member of the household. Even when two household members are interviewed, they are usually administered different questionnaires, a household questionnaire and an individual questionnaire that collect different pieces of information. Our respondents were both administered an identical individual questionnaire and one of them was requested to give additional information about the household. Thus, the KHAS data has responses on the same questions from two individuals within a household which provide interesting insights into household processes.

The household members were asked to identify the member best-informed about the household economy and assets. This individual was our primary respondent, who could be either male or female, and did not necessarily have to be the traditional head of the household. This definition was adopted in part, to move away from the traditional head of the household concept who is usually the patriarch. While it is likely that our primary respondents have largely converged with the household heads in our sample, we have also come across households where the son, instead of the father, was identified as the primary. If the primary respondent was married then the spouse was the secondary respondent. If the primary was not married, then the secondary was chosen based on a set of protocols. For the respondents, there is data on financial assets, rights and control over the assets they own including income generated from the assets, and how these assets were acquired.

3.1   Sample description

The sample for this paper is restricted to currently married couple respondents. The total sample size is 2,511 households, distributed as 71 percent in rural and 29 percent in urban areas.[7] Table2 presents some of the key respondent characteristics. Couples largely reported belonging to the same religion and same caste.[8] The majority in both rural and urban areas were Hindus (90

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[7] Urban areas exclude the metropolis of Bengaluru.
[8] The caste and religion estimates for this sample of households are not very different from those for the overall sample reported in Swaminathan, Suchitra, and Lahoti (2011). The rural estimates are similar to those of the National Family and Health Survey-3 (NFHS-3). The urban estimates are not directly comparable since we treat Bengaluru as a separate sample.

percent in rural and 72 percent in urban). Urban areas had higher presence of Muslim households (23 percent) compared to rural areas (8 percent). Along expected lines, there was a higher concentration of Scheduled Caste (SC) and Scheduled Tribe (ST) households in the rural areas while urban areas had a relatively higher presence of Forward Caste (FC) and other households.[9]

Table 2: Respondent Characteristics (%)

Characteristics	Rural		Urban	
	Wife	Husband	Wife	Husband
Religion				
Hinduism	--	90	--	72
Islam	--	8	--	23
Other	--	2	--	5
Caste				
Scheduled Caste & Scheduled Tribe	--	11	--	35
Backward Caste & Other Backward Caste	--	61	--	51
Forward Caste & Other	--	28	--	14
Education				
Illiterate	60	43	26	18
Primary	10	16	10	12
Higher primary	14	14	17	17
Secondary	12	18	28	28
Higher secondary and above	4	9	19	27
Occupation				
Wage employed	1	6	8	30
Self employed	6	48	6	32
Casual labourer	37	41	13	28
Contributing family worker	29	1	5	0
Home-maker, retired, old	27	3	67	10
Average age (in years)	39	47	39	47
Property status				
Residence owner	9	81	7	49
Agricultural land owner	5	63	1	16
Own either residence and agricultural land	11	86	8	55
Total number of respondents	1778		733	

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[9] In this category, only 1 percent in rural areas and around 7 percent in urban areas is accounted for by FCs. The remainder of the households belongs to unclassified castes as well as other religions.

The educational and occupational profiles of men and women[10] varied considerably across the areas. Rural areas were characterized by higher illiteracy and urban areas had a larger share of individuals with at least secondary education. Casual labour dominated in the rural areas while more individuals were involved in wage employment in urban areas. However, within both areas, gender differentials persist in both educational attainments and occupation. More women were illiterate and fewer had attained higher levels of education as compared to men. The workforce participation of women was much lower than that of men with 67 percent in urban and 27 percent in rural areas being home-makers. A large number of women, particularly in rural areas, were also contributing family workers, *i.e.*, they provided their labour on the family farm or business activity/enterprise without monetary compensation.

The survey elicited information on all assets owned by the households and who the owners of these assets were. This ownership information was acquired by asking the primary respondent the question "*To whom does this asset belong?*", and was based on the respondent's perceptions on who the owners were. Using this information on the owners of assets, the incidence of asset ownership by sex is calculated. This measure looks at the adult male and female population and calculates what percentage of each sex owns a given asset. If the asset is owned jointly by two or more individuals, each individual is considered to be an owner. Table 2 shows that for the sample under consideration, there are substantial gender disparities in the ownership of residence and agricultural land; 81 percent of men in rural areas and 49 percent in urban areas were owners of residences, compared to merely 9 percent and 7 percent of women in rural and urban areas, respectively. For agricultural land, a key productive asset, the ownership incidence by women was even lower at 5 percent in rural areas and 1 percent in urban areas.

4.   Key variables

Decision-making

The outcome measures are based on two decisions; whether, when and where to be employed and the ability to decide on the use of own earnings. Whether to work outside the home or not is

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[10]In this paper, we use the terms men and women, and husbands and wives interchangeably. Both sets of terms refer to the sample for analysis.

a potentially life-changing decision with several positive benefits such as an independent source of income, enhanced mobility, increased awareness and self-confidence. However, realization of these benefits depends to a great degree on whether women can exercise control over their income; therefore the decision on the use of earnings is critical.

The employment and earnings questions were asked of the husband and the wife, both for their own and their spouse's decisions. To elaborate, the wife responded about the decision making process about her own employment and earnings as well as her husband's employment and earnings. Comparable information was also obtained from the husband. Thus, it is possible to analyse convergence or divergence in inter spousal perceptions with regard to decision making. For each of the decision questions, the responses can be that they (i) decide alone or (ii) in consultation or (iii) with permission or (iv) someone else makes the decision.

The decision making process can be analysed in multiple ways. The most frequent being an exclusive focus on the woman's perception of her involvement in the process. This is typically the case due to data considerations; decision making questions are rarely directed to men. In fact, in India, only the latest round of NFHS has included a men's questionnaire. For couples, exploring interspousal perception of the process allows for greater insights into the household rather than viewing it only through the wife's perceptions. This paper utilizes both, the individual responses by the woman as well as the couple's perception to classify the process as wife autonomous, agree in consulting (separately for wife's and husband's decisions) and egalitarian.

In the first outcome classification, only the wife's response to her participation in decisions regarding her employment and use of her earnings is taken into consideration. If she decided independently then the process was classified as wife autonomous. This is similar to the classification in Swaminathan, Lahoti, & Suchitra (forthcoming) where the sample, however, was all women in rural areas. For the second classification, responses from the both spouses regarding the same decision (wife's employment or earnings) are taken into account. If there is inter spousal agreement that the decision is taken consultatively with each other, then the decision making process is classified as agree in consulting. Other people in the household can be part of this consultative process, but at minimum the couple should be involved. The

egalitarian process takes this one step further by combining information on how the husband's and the wife's decisions were made. Thus, a couple is classified as egalitarian if there is agreement and symmetry in the decision making process for the husband's and wife's decisions, *i.e.,* there is inter spousal agreement that both these decisions are made in consultation with each other.

Asset ownership:

A woman is described as a property owner if she owns either agricultural land or her home. These forms of immovable property contribute to more than 87 and 73 percent of total household wealth in rural and urban areas, respectively (Swaminathan, Suchitra, & Lahoti, 2011). The hypothesis in this paper is that property ownership by women will enhance their household decision-making participation by increasing their status and its influence on household power structures. What this implies for our outcomes of interest is that we expect a greater engagement in both her and her spouse's decisions for propertied women. If we expect property ownership to alter power structures within the household, then relative ownership is likely to play a role in as much as absolute ownership also matters. We explore this aspect by taking into account the couple's property ownership status; only the wife or the husband own property, both own property and neither own property. While it would have been interesting to estimate the separate effects of ownership of land vs. house, it was not feasible due to the low incidence of women owning these assets.

An inherent weakness of incidence-based measure of ownership is that it does not capture quality and/or size differentials among owners. Thus, an individual with several units of high-quality property is equated to an individual who owns very little low-quality property. Since KHAS collected valuation data, the multivariate models were also estimated using asset-worth measures of the wife and husband separately. There was no qualitative difference in the impact on decision making and thus, only the incidence-based measures are presented here.

The relationship between women's property ownership and the decision-making process is initially explored using descriptive statistics. The initial step is to examine women's responses to decisions that directly concern her. Table 3 suggests that women who own either a house or land

are more likely to make decisions about their employment and use of earnings independently (23 percent for both decisions) than women who own neither of these assets (14 percent for employment and 12 percent for earnings). This is similar to the results in Swaminathan, Lahoti, & Suchitra (forthcoming) that had examined this relationship for rural women, both currently married and currently single.

Table 3: Wife's decisions by her property status (%)

Decision-making process	Employment decision		Earnings decision	
	Owns house or land	Owns neither house nor land	Owns house or land	Owns neither house nor land
Autonomous	23	14	23	12
Consultative, with permission or not involved	77	86	77	88

Note: Difference in autonomy across women's asset ownership status is statistically significant at 1% for both decisions.

We then consider the perceptions of both spouses on how the decision about the wife's employment and use of earnings is made (Table 4). Here the outcome variable is classified into several categories of agreement and disagreement. Overall, we find that couples are more in agreement than in disagreement regarding how these decisions are made. Disagreement can be found in 20 to 35 percent of the couples. The extent of disagreement is higher for women owning assets than those not owning assets for both the employment and the earnings decisions. Irrespective of the wife's asset ownership, agreement on a consultative process between them is the dominant decision-making process. This means that by and large, wives and husbands both report that they consult each other in order to make the decision about her employment and use of earnings. The incidence of such consultation is higher in the case of women who do not own any property as compared to those who do.

Table 4: Wife's employment and earnings decisions by her property status (%)

Decision-making process	Employment decision		Earnings decision	
	Owns house or land	Owns neither house nor land	Owns house or land	Owns neither house nor land
Agreement on consultative process	56	65	53	71
Agreement that spouse not involved in decision	4	2	8	3
Other agreement	8	5	4	6
Overall agreement	**68**	**72**	**65**	**80**
Disagreement 1	6	9	9	5
Disagreement 2	15	10	13	9
Other disagreement	11	9	13	6
Overall disagreement	**32**	**28**	**35**	**20**

Disagreement 1 = Wife reports consulting spouse but spouse reports he decides for her
Disagreement 2 = Wife reports deciding independently but spouse reports being consulted
Note: The differences in the decision-making processes across women's asset ownership status are statistically significant at 1% for both decisions.

The importance of incorporating the views of both spouses emerges when we examine two of the categories together - the couple's agreement that the spouse is not involved in the decision, in combination with Disagreement 2, *i.e.,* the wife says she decides independently but the spouse reports a consultative process. In both these cases, similar to what emerged in the previous table on women's autonomous decision-making, women owning some property seemingly exhibit more autonomy than women who do not own any. However, irrespective of their property status, husbands agree with their wives only in 4 to 8 percent of the cases, while 9 to 15 percent of the cases they disagree and feel they have engaged with their wives' decision.

Table 5 presents the analogous decision making process for the husband. Compared to the women's decisions, a relatively larger proportion of couples are in the disagreement categories (at least 45 percent across decisions and irrespective of women's property status). Correspondingly, agreement on a consultative process is also lower although, even in husband's decisions, this tends to be higher when the wife does not own assets compared to when she owns assets. Overall, between the two sets of decisions, husbands report autonomous decision-making

much more than wives; the summation of the two categories, agreement that spouse not involved in decision and Disagreement 2 (husband reports deciding independently but spouse reports being consulted) reveals this.

Table 5: Husband's employment and earnings decisions by wife's property status

Decision-making process	Employment decision		Earnings decision	
	Wife owns house or land	Wife owns neither house nor land	Wife owns house or land	Wife owns neither house nor land
Agreement on consultative process	29	32	39	45
Agreement that spouse not involved in decision	11	14	6	8
Other agreement	0	0	5	2
Overall agreement	**40**	**46**	**50**	**55**
Disagreement 2	45	43	39	36
Disagreement 3	10	8	7	7
Other disagreement	5	3	4	2
Overall disagreement	**60**	**54**	**60**	**45**

Disagreement 2 = Husband reports deciding independently but spouse reports being consulted

Disagreement 3 = Husband reports consulting spouse but spouse reports not being part of the decision-making

Note: The differences in the decision-making processes across women's asset ownership status are not statistically significant.

A final step in describing the decision-making process of couples is to examine both their decisions simultaneously to determine the extent of symmetry between them. We define a set of agreement and disagreement categories as shown in Table 6. Here, agreement means that the decision-making category for the wife's decision has to be identical to the husband's decision-making category as well. If there is any mismatch, then the couple is categorized under disagreement. A large number of such categories are possible – for instance, if there is agreement that the wife's decisions are made consultatively, unless there is agreement that the husband's decisions are also made consultatively, the couple would be categorized under disagreement.

Recall, that an egalitarian couple is one where both the spouses are in agreement that they consult each other and there is symmetry across their decisions. There is a greater degree of

symmetry for the earnings decision than for the employment decision. In both cases, if the wife owns property, then the couple is less likely to be egalitarian than if the wife does not own any property. This follows from the previous analysis which showed that property-owning women were more likely to be autonomous in their own decisions, and less likely to be consulted in their husbands' decisions.

Table 6: Extent of symmetry in decision-making process by wife's property status

Decision-making process	Employment decision		Earnings decision	
	Wife owns house or land	Wife owns neither house nor land	Wife owns house or land	Wife owns neither house nor land
Egalitarian	22	29	30	46
Husband dominates	4	5	2	2
Wife dominates	0	0	1	1
Other agreement	4	3	5	4
Overall agreement	**31**	**36**	**39**	**52**
Overall disagreement	**69**	**64**	**61**	**48**

Note: The differences in the decision-making processes across women's asset ownership status are not statistically significant.

5. Empirical Specification

Logisitic regression models were used to explore the impact of couple's property status on the decision making process in the household. The equation to be estimated is represented as:

$$logit(DMP_i) = \beta_0 + \beta_1\, couple's\ property\ status_i + \beta_2 X_{wifeind_i} + \beta_3 X_{husboccup_i} +$$

$$\beta_4 X_{diffind_i} + \beta_5 X_{hh_i} + \beta_6 X_{d_i} + \varepsilon_i \qquad\qquad [1]$$

where

DMP_i isa binary outcome variable indicating whether the decision was made autonomously by the wife, or there was agreement that decisions were made consultatively, or the decision-making process was egalitarian. Since this is a logit model, ($logit(DMP_i)$) represents the log of odds ratio. For example, in the first outcome, it is the log ratio of the probability that the decision is made independently by the wife to the probability that it is not.

couple's property status$_i$ indicates who among the couple owns either agricultural land or house.

$X_{wifeind_i}$ represents the wife's individual characteristics such as education, employment status and age.

$X_{husboccup_i}$ represents the husband's employment status.

$X_{diffind_i}$ represents the difference in characteristics of wife and husband for age and education. X_{hh_i} is the set of household characteristics (caste, religion), the household's position in the wealth distribution to account for overall economic status, household composition (number of adult men and adult women in the household) and area dummy (rural or urban).

X_{d_i} represents the district where the household resides and helps control for the location-specific unobservable factors.

Equation 1 is estimated separately for the four decision-making outcomes for both employment and earnings decisions. Below we discuss our expectations for the independent variables.

Paid employment could lead to enhanced status in the household and also increase her confidence and self- esteem; therefore we expect employed women to have greater participation in their own as well as their husbands' decisions. Allendorf (2007) reports that currently married women agricultural workers in Nepal who were paid in either cash or kind were more likely to make household decisions alone than women who were not paid. Similarly, Swaminathan, Lahoti, & Suchitra (forthcoming) find that any form of work (paid or unpaid) increases the likelihood of rural women making decisions about their employment, earnings and health alone, as well as being able to independently travel to places outside the home. Kishor & Subaiya's (2008) comparative analysis of women's decision-making across 23 countries, using the Demographic and Health Surveys, corroborates these findings.

While women's educational attainments would be expected to enhance their involvement in their own as well as their husbands' decisions, evidence thus far shows mixed results. Allendorf (2007) finds educated women in Nepal to be more likely to make decisions alone as compared to

uneducated women. Kishore and Subaiya (2008), however, find this relationship to be more nuanced. While education has a positive impact on women's decision-making, this varies by country, decision, and whether the decision was made individually or jointly. Swaminathan, Lahoti, & Suchitra (forthcoming) find that education does not systematically have a positive impact on women's autonomy across decisions. While it enables them to travel independently outside the home and decide how to use their own money, it does not give them more autonomy in decisions pertaining to their employment and access to health services.

We expect older women to be more involved in the decision making process. The position of women in the household changes with age and status (daughter, wife, mother, mother-in-law); it is likely that roles of mother-in-law or mother are far less restrictive as compared to that of daughter-in-law or even a daughter. Allendorf (2007) and Swaminathan, Lahoti, &Suchitra (forthcoming) find that age of the women was consistently positively associated with women making decisions alone up to a certain threshold. Kishore and Subaiya (2008) find that for four decisions (large household purchases, women's own health care, purchases for daily needs and visits to family or friends) older women in almost all countries in their sample were more likely to make these decisions alone than younger women.

We expect smaller differences in age and educational attainment among the couple to increase the likelihood of the wife's participation in the decision making process. If the husband was much older or more highly educated, then one could expect him to dominate the decision-making process. However, as these gaps narrow, it is probable that the husband will view his wife more as an equal and engage with her in household decisions. Kishor & Subaiya (2008) find that in majority of the countries in their analysis, spousal age and education difference do not have a significant impact on women's decision making.

The effect of household economic status on women's decision making is uncertain. Kishore and Subaiya (2008) postulate that wealth can provide exposure to new ideas but it might also lead to strengthening of patriarchal norms. They find that wealth has no significant impact in majority of the countries with respect to individual or joint decision making. Swaminathan, Lahoti, &

Suchitra (forthcoming) also do not find any systematic impact of wealth on decision making for currently married women in rural Karnataka.

Historically, the district of Dakshina Kannada has been matrilineal and till date, households, particularly in rural areas of the district, tend to follow this tradition. Hence, we expect women from these districts to be more actively involved in their own and their husband's decision making process. The regressions also control for the husband's occupational status as they could impact his involvement in her decisions.

A limitation of this model is that property ownership may be endogenous to the decision-making process leading to a bias in the results. It can be argued that both, owning a land or a house, and participating in decision making processes are positively impacted by the same of set of unobserved characteristics. A standard method of dealing with this problem is through the use of instrumental variables that are correlated with her property ownership but not with her decision-making. Possible instruments are her parents' education, and their property status both of which are likely to be positively related to her own property ownership. Another potential instrument is the number of siblings. If she is an only child then it is likely that she will inherit her parents' property. These variables, however, were poorly correlated with her asset ownership and could not be used as instruments. This poor correlation is likely explained by the fact that women who own some form of property rarely inherit from their parents or purchase it through their own earnings. Most of the women property owners acquire their assets through marriage either through their husband's inheritance or his earnings (Swaminathan, Suchitra, & Lahoti, 2011).[11] The potential implications of acquiring assets through marriage for women are discussed below. Swaminathan, Lahoti, & Suchitra (forthcoming) had dealt with the issue of endogeneity by restricting property acquired only from those sources that could be argued as exogenous to the outcomes. This approach is not feasible for this analysis as it reduces women property owners to only 3.3 percent.[12]

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[11]Women's in-laws' characteristics could potentially be correlated with her property ownership as they would have an impact on the probability of her spouse being a property owner. But it is also likely the in-laws' characteristics would impact household decision-making.

[12]The sample in the Swaminathan, Lahoti, & Suchitra (forthcoming) paper was all women and included widowed women who were more likely to be property owners than currently married women.

6. Results

Table 7 presents the summary statistics of the variables used in the multivariate analysis. These are presented by the employment and earnings decisions due to the differences in sample size.[13] In the employment sample, only 11 percent of women own either agricultural land or residence (3 percent where only wife owns and 8 percent husband and wife both own)in contrast to 80 percent for men (69 percent only husbands owns and 8percent husband and wife both own). Women property owners increase to 13percentin the earnings subsample while men owners are now at 80 percent.

Table 8 presents the odds ratio from the logit models for employment (columns 1 to 4) and earnings decisions (columns 5 to 8). The key variable of interest is the impact of the couple's property status on the decision making outcomes. The results suggest that wife's property status does have an impact on decision making, even after controlling for individual, household and location characteristics, although this effect is not systematic across all outcomes. Focusing on employment, wife and husband both owning property increases the odds that she will decide independently about her employment by 39 percent as compared to women who do not own property even as their husbands do. Couple's property ownership status does not have an impact on either the consultative or the egalitarian outcomes. In the earnings decisions, it is seen that the wife being the only property owner makes a difference to two of the four outcomes. The odds of her being able to decide independently about the use of her earnings increase by 223 percent, as compared to households where only husbands own property. Couples where only women own property are also less likely to agree that the wife's employment decision was made consultatively by the couple. The odds of not agreeing over the decision being made consultatively are approximately three times as high as the odds of agreement. It is unfortunately not possible to unpack the zero category further; in addition to disagreements or conflicts over how the decision making is perceived, it also includes other agreements between the couple. For example, the zero would also include situations where the wife and husband agree that she is not involved at all in her employment decision.[14] Similar to the employment outcomes, the couple's

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[13]The earnings sample is restricted to those who are employed.
[14]One option to unpack the zero categories is to use a multinomial logit model using the classification discussed in the descriptive tables.

property status does not affect the egalitarian outcome or the couple agreeing that the husband's use of his earnings was made consultatively.

The egalitarian outcome in some ways describes the 'ideal' decision-making process among couples. This outcome is realized only if there is convergence among the spouses' perceptions that their decisions regarding own and spousal employment and earnings are made consultatively with each other. Thus, not only does property ownership have to impact her own involvement in decision making, but it also has to impact her spouse's perception of her involvement in decisions. The other two consultation outcomes, agree in consulting (separately for wife's and husband's decisions) consider only one spouse's decision and thus, are somewhat less stringent in their requirements than the egalitarian outcome. We speculate briefly on what may be driving the lack of systematic relationship between property ownership and consultative and egalitarian outcomes. As discussed earlier, currently married women rarely acquire their property independently of their spouse, either through natal inheritance or through their own earnings. Women are mainly co-owners with their husbands who may have inherited the property or purchased it.[15] It is possible that property accruing to the woman through her spouse does not provide her the sense of security that property independently acquired would have. Property acquired in this fashion may also not impact the marital power structure as her husband is equally aware that his wife's property status is not independent of him.[16]

Women's education by itself does not seem to impact the employment decision-making process. However, women who are more educated than their husbands are more likely to be involved in their husbands' employment decision. The odds of the couple agreeing that his employment decision was made consultatively increases by 14 percent if wife is one level more educated than the husband. Conversely, households where husbands are more educated than their wives have less of a likelihood that the couple agree that the husband's employment decision was made consultatively. With respect to the earnings model, being educated up to higher primary increased women's odds of deciding independently by 97 percent as compared to illiterate and

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[15]Given the relatively low labour force participation of women, it is unlikely their monetary contributions towards the purchase would be substantive.

[16]India follows a separation of property marital regime, *i.e.,* all property acquired after marriage is not considered joint marital assets but accrues to the individual to whom it legally belongs.

women with less than primary education. Not surprisingly, it decreased the odds of agreeing that the use of her earnings was consultative by 63 percent. Interestingly, women's education level and difference in education levels between the couple have no significant impact on whether the decision-making process is egalitarian or not across both employment and earnings decisions. Older women are more likely to make their own decisions alone and be more engaged in husband's decision for both employment and earnings decisions. Further, older women live in households where employment decision is made in an egalitarian manner. Older women would have been married for a longer time and this could be reflecting greater understanding between the couple in addition to increased self-confidence.

Examining occupational status shows that some form of cash employment is positively associated with women's ability to independently decide about their employment. Women who are wage employed or casual workers are more likely to make their own employment decision alone as compared to homemakers. The odds of deciding about their employment independently increases by 171 percent for those in wage employment and 74 percent for casual workers. Couples where women are involved in any form of remunerative employment are also more likely to involve the wife in the husband's decision as well as be egalitarian. Underscoring the importance of paid employment, the odds of the husband's decision being made consultatively and the decision process being egalitarian are higher for women who are wage employed, self-employed or engaged as casual labourers as compared to homemakers. The effect of employment is less consistent on the earnings decision. Being wage or self-employed increases the odds that husband's decisions are made consultatively by 63 percent and 42 percent, respectively.

In households where the husband is old/retired or not involved in any economic activity, women are more likely to make their employment decision alone and it is less likely that couple agree that the her employment decision is made consultatively. The odds of women making the decision alone increases by 49 percent and the odds that the couple agree that her employment decision is made consultatively decrease by 34 percent as compared to households where the husband is a casual worker. For women whose husbands are wage employed, the odds of independently deciding on their earnings decreases by 47 percent, odds of agreeing her decision

is made consultatively increases by 124 percent and the odds or egalitarian decision making increases by 84 percent.

An increase in the number of adult women negatively impacts husband's decisions being made consultatively for employment and earnings and thus, also negatively impacts egalitarian decision making for employment decision. This could reflect the presence of a mother-in-law or other older women in the household who are involved in these decisions as opposed to the wife being involved. Muslim women are less likely to be involved in their husband's decisions as compared to women belonging to Hindu or other religions. This result also follows through for the egalitarian decision making for the employment decisions. Scheduled caste and scheduled tribe households are less likely to have agreement among the couple that the husband's decision is made consultatively. Religion and caste do not have an impact on how women's own decisions are made. Household wealth has no systematic significant impact on women's own decisions implying that wealth by itself does not raise women's status in the household. In fact, the odds of egalitarian decision making are lower by 72 percent in the top 40 percent of the households for the employment decision.

Rural couples are more likely to be egalitarian and more consultative for the wife's decisions (employment and earnings) and more consultative for the husband's earnings decision than urban households. Women in rural area are also less likely to make their decisions independently. The lack of total autonomy can be explained by more traditional gender norms in rural areas which would also account for agreement that her decisions are made consultatively (both agree that the husband is consulted). Interestingly, there is also an increase in the odds of being consulted in the husband's decision and in egalitarian decision making. This could mean that while total autonomy is not granted, traditions could be changing such that women who had previously no say in household decision-making are now being consulted.

Women living in the coastal district of Dakshina Kannada are more likely to make decisions alone and less likely to have consultative and egalitarian decision making as compared to women living in Bidar. This is likely due to the influence of matrilineal culture in the region where women's status in the household and community is regarded as being higher than in patrilineal

cultures. While the divergence of spousal perceptions with regard to her decisions is indicative of her independently deciding, it is not clear why there is no agreement about the husband's decisions being made consultatively. A surprising finding is that for couples in Bidar district, the odds of being egalitarian is higher for both decisions and the odds of agreeing on consultation are also higher for employment.

7.   Conclusion

This paper examines the determinants of the decision-making process among couples. Decision-making is conceptualized using a broader lens that considers not only women's perceptions on their participation in their own decisions, but also their participation in their husbands' decisions as well as husbands' perceptions on their participation in their own and their spouses' decisions. This helps us categorise couples as egalitarian when the spouses are in agreement that both their decisions are made consultatively with each other and non-egalitarian when they are not in agreement on this. Our findings on what women report on their own decisions are consistent with what previous studies have found – that property ownership improves their autonomy in making decisions about their earnings and employment.

Property ownership does not, however, systematically lead to agreement between couples on consultation in their decisions. Therefore, egalitarianism in decision-making between couples is not impacted by women's property status. One of the main reasons for this is that asset acquisition of married women is largely mediated through the spouse. Women are largely reported as co-owners of agricultural land and houses that their husbands have either inherited or purchased. Although this might render them empowered enough to participate in the decision-making process, husbands do not necessarily agree with their wife's perceptions. While this calls for further research, one implication of our results is that it is not enough for women to own property; in order to make an impact on their wellbeing, it has to be independently acquired by them and recognized as such by other household members.

References

Agarwal, B. (1994). *A Field of One's Own: Gender and Land Rights in South Asia*. Cambridge University Press.

Allendorf, K. (2007). Do Women's Land Rights Promote Empowerment and Child Health in Nepal? *World Development*, *35*(11), 1975-88.

Bhattacharyya, M., Bedi, A. S., &Chhachhi, A. (2011). Marital Violence and Women's Employment and Property Status: Evidence from North Indian Villages. *World Development*, *39*(9), 1676-1689.

Coleman, D. H., & Straus, M. a. (1986). Marital power, conflict, and violence in a nationally representative sample of American couples.*Violence and victims*, *1*(2), 141-57.

Datta, N. (2006). Joint Titling — a Win-Win Policy?Gender and Property Rights in Urban Informal Settlements in Chandigarh, India.*Feminist Economics*, *12*(1), 271-298.

Doss, C. (2006).The effects of intrahousehold property ownership on expenditure patterns in Ghana.*Journal of African Economies*, *15*(1), 149-180.

Duflo, E. (2003). Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa. *The World Bank Economic Review*, *17*(1 (June)), 1-25.

Friedemann-Sánchez, G. (2006). Assets in Intrahousehold Bargaining among Women Workers in Colombia's Cut-Flower Industry.*Feminist Economics*, *12*(1&2), 247-69.

Garikipati, S. (2009). Landless but not assetless: female agricultural labour on the road to better status, evidence from India. *Journal of Peasant Studies*, *36*(3), 517-545. doi:10.1080/03066150903142774

Government of India.(2011). *Census of India 2011.Provisional Population Totals, Karnataka.Series 30*.

Government of Karnataka.(2006). *Karnataka Human Development Report 2005*.

Jejeebhoy, S. J. (2002). Convergence Divergence in Spouses ' Perspectives Women ' s India Autonomy in Rural. *Studies in Family Planning*, *33*(4), 299-308.

Jones, N., Harper, C., Watson, C., Espey, J., Wadugodapitiya, D., Page, E., Stavropoulou, M., et al. (2010).*Stemming girls' chronic poverty.Catalysing development change by building just social institutions.Development*.

Katz, E., & Chamorro, J. S. (2003). Gender, land rights and the household economy in rural Nicaragua and Honduras. *Conference of the Latin American and Caribbean Economics Association*. Puebla, Mexico.

Kishor, S., &Subaiya, L. (2008).*Understanding Women's Empowerment: A Comparative Analysis of Demographic and Health Surveys (DHS) Data*. Calverton, Maryland, USA.

Panda, P., &Agarwal, B. (2005).Marital Violence, Human Development, and Women's Property Status in India.*World Development*, *33*(5), 823-50.

Park, C. (2007). Marriage Market, Parents' Bargaining Powers, and Children's Nutrition and Education.*Oxford Bulletin of Economics and Statistics*, *69*(6), 773-793.

Sethuraman, K. (2008). The Role of Women ' s Empowerment and Domestic Violence in Child Growth and Undernutrition in a Tribal and Rural Community in South India *Health (San Francisco)*.

Smith, L., Ramakrishnan, U., Haddad, L., &Martorell, R. (2003).The Importance of Women's Status for Child Nutrition in Developing Countries. Washington DC.

Swaminathan, H., Suchitra, J. Y., & Lahoti, R. (2011).*KHAS: Measuring the Gender Asset Gap*. Bangalore: Indian Institute of Management Bangalore.

Swaminathan, H., Lahoti, R., & Suchitra, J.Y. (forthcoming).*Women's Property, Mobility, and Decision-making: Evidence from Rural Karnataka*. Working Paper.

Table 1: Profile of regions and selected districts

Regions	Characteristics	Districts	Sex ratio	Female literacy	Women's labour force participation	Gender wage differential for agricultural labour (Rs / day)	Share in Net State Domestic Product (%)	Human Development Index	% Rural population
Northern Maidan	300 to 600 metres above sea level; black cotton soil-rich in Deccan plateau; irrigated by River Krishna and tributaries, low rainfall area with jowar, cotton, oilseeds and pulses; sugarcane in irrigated areas	Bidar Rural	957	56.7	31	35	1.8	0.599	75.1
		Bidar Urban	939	76.6	9.6				
		Gadag Rural	968	60.4	46.2	8	1.5	0.634	64.4
		Gadag Urban	997	73.9	22				
		Gulbarga Rural	964	47.5	42.8	31	4.1	0.564	67.5
		Gulbarga Urban	959	73.0	13.2				
Southern Maidan	600 and 900 metres above sea level; lies in River Cauvery basin; irrigated by Cauvery and tributaries; rice, sugarcane, ragi, coconut and mulberry principal crops.	Mysore Rural	973	55.5	32.2	26	5.1	0.631	58.7
		Mysore Urban	994	82.0	13.6				
		Tumkur Rural	980	61.9	46.8	21	3.7	0.630	77.6
		Tumkur Urban	978	82.2	18.8				
		Bengaluru City	912	86.1	17.5		22.5	0.753	
Malnad	Rainfall of 1,000 to 2,500 mm; dense rain forest with teak, rosewood and bamboo; commercial crops of coffee, arecanut, pepper, cardamom, rubber	Shimoga Rural	993	69.6	35.8	11	3.0	0.673	64.5
		Shimoga Urban	999	84.4	13.2				
Coastal	Average width of 50 to 80 km., length of 267 km; rainfall at 2,500 mm to 3,000 mm; Coconut, arecanut, rubber, paddy grown	DK Rural	1018	79.7	48.7	25	5.6	0.722	52.5
		DK Urban	1018	88.8	30.3				
		Udupi Rural	1112	78.4	36.4	26	2.6	0.714	71.7
		Udupi Urban	1044	89.2	22.8				
KARNATAKA		**Rural**	**975**	**59.6**	**39.9**	**18.92**	Rs. 9,338,282 Lakhs		**61.4**
		Urban	**957**	**81.7**	**16.4**			0.650	

Source: Sex ratio, female literacy, % rural population: Census of India 2011; Women's workforce participation rate: Census of India 2001; Gender wage differential, Share in NSDP: Directorate of Economics and Statistics, 2003; Human Development Index: Karnataka Human Development Report, 2005

Table 7: Summary statistics

	Employment		Earnings	
	Mean	**Standard Deviation**	**Mean**	**Standard Deviation**
Decision-making Variables				
Wife decides independently about her decision	0.16	0.36	0.14	0.34
Wife's decision: Couple agree decision is consultative	0.61	0.49	0.69	0.46
Husband's decision: Couple agree decision is consultative	0.31	0.46	0.50	0.50
Egalitarian decision making	0.27	0.44	0.43	0.49
Couple's Property Ownership Status				
Only Husband owns	0.69	0.46	0.71	0.46
Only Wife owns	0.03	0.17	0.04	0.19
Both Own	0.08	0.27	0.09	0.29
Neither Own	0.20	0.40	0.16	0.37
Wife's Education				
Illiterate or Below Primary	0.49	0.50	0.63	0.48
Upto Higher Primary	0.26	0.44	0.22	0.41
Secondary & Above	0.25	0.43	0.16	0.36
Education difference for couple	-0.25	0.77	-0.22	0.74
Wife's Age	38.70	11.59	37.34	9.95
Age difference for couple	-7.79	4.28	-7.71	4.12
Wife's Occupation				
Wage Employed	0.03	0.18	0.08	0.27
Self Employed	0.05	0.23	0.12	0.33
Casual Labour	0.32	0.47	0.75	0.43
Contributing Worker	0.20	0.40	0.03	0.18
Homemakers & Other	0.39	0.49	0.02	0.12
Husband's Occupation				
Wage Employed	0.13	0.33	0.09	0.29
Self Employed	0.42	0.49	0.24	0.43
Old/Retired & Other	0.07	0.25	0.00	0.00
Casual Labour	0.39	0.49	0.66	0.47
Number of Adult Men in Household	1.67	0.95	1.55	0.84
Number of Adult Women in Household	1.64	0.86	1.53	0.75
Religion				
Hindu & Other	0.85	0.35	0.88	0.32
Islam	0.15	0.35	0.12	0.32
Caste				
Forward Caste/Other	0.20	0.40	0.15	0.36
OBC & BC	0.55	0.50	0.49	0.50

SC & ST	0.25	0.43	0.36	0.48
Household Wealth				
Bottom 20%	0.17	0.37	0.20	0.40
Middle 40%	0.40	0.49	0.51	0.50
Top 40%	0.43	0.50	0.29	0.46
Rural	0.71	0.45	0.80	0.40
District				
Bidar	0.15	0.36	0.17	0.38
Dakshina Kannada	0.11	0.32	0.10	0.30
Gadag	0.14	0.35	0.18	0.38
Gulbarga	0.15	0.36	0.16	0.36
Mysore	0.15	0.35	0.13	0.34
Tumkur	0.14	0.35	0.14	0.35
Shimoga	0.16	0.37	0.12	0.32

Table 8: Property ownership and decision-making, odds ratios

	Employment				Earnings			
	Wife decides independently about her decision	Wife's decision: Couple agree decision is consultative	Husband's decision: Couple agree decision is consultative	Egalitarian decision making	Wife decides independently about her decision	Wife's decision: Couple agree decision is consultative	Husband's decision: Couple agree decision is consultative	Egalitarian decision making
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Couple Property Ownership Status (base: Only husband owns)								
Only Wife owns	1.412	0.891	1.063	0.983	3.232***	0.332***	1.454	0.798
	(0.407)	(0.239)	(0.308)	(0.309)	(1.351)	(0.125)	(0.411)	(0.310)
Both Own	1.394*	0.973	1.287	1.014	0.819	0.838	0.979	0.705
	(0.275)	(0.169)	(0.227)	(0.193)	(0.287)	(0.223)	(0.174)	(0.188)
Neither Own	1.093	1.14	1.079	0.976	1.501	0.91	1.054	0.849
	(0.207)	(0.170)	(0.175)	(0.167)	(0.441)	(0.229)	(0.160)	(0.211)
Wife's Education (base: Illiterate & Below Primary)								
Upto Higher Primary	0.899	1.013	0.849	0.979	1.976***	0.630**	0.888	0.769
	(0.141)	(0.125)	(0.110)	(0.132)	(0.507)	(0.130)	(0.112)	(0.157)
Secondary & Above	0.728	0.876	0.965	0.939	1.468	0.699	1.21	1.246
	(0.157)	(0.143)	(0.167)	(0.171)	(0.569)	(0.212)	(0.198)	(0.367)
Education difference for couple	1.072	0.977	1.145*	1.114	1.146	1.064	1.022	1.119
	(0.099)	(0.069)	(0.083)	(0.084)	(0.181)	(0.127)	(0.072)	(0.124)
Wife's Age	1.013**	1.006	1.018***	1.019***	1.024**	1.005	1.014***	1.007
	(0.006)	(0.005)	(0.005)	(0.005)	(0.011)	(0.009)	(0.005)	(0.008)
Age difference for couple	1.006	1.012	0.993	0.991	0.983	0.995	1.007	0.996

(0.014)	(0.011)	(0.011)	(0.011)	(0.023)	(0.019)	(0.011)	(0.018)

Wife's Occupation (base: Employment: Homemakers & Others; Earnings:Contributing & Others)

Wage Employed							
2.713***	0.906	1.610*	1.949**	1	1.832	1.629*	0.865
(0.781)	(0.238)	(0.433)	(0.546)	(0.455)	(0.863)	(0.426)	(0.401)
Self Employed							
1.367	1.066	1.720**	1.723**	1.123	1.399	1.420*	1.115
(0.358)	(0.216)	(0.364)	(0.381)	(0.426)	(0.554)	(0.281)	(0.437)
Casual Labour							
1.741***	1.092	1.460***	1.300*	0.824	1.558	1.179	0.894
(0.283)	(0.143)	(0.206)	(0.195)	(0.260)	(0.573)	(0.149)	(0.325)
Contributing Worker							
0.994	1.324*	1.247	1.263				
(0.202)	(0.195)	(0.196)	(0.207)				

Husband's Occupation (base: Casual Labour)

Wage Employed							
0.885	1.305	1.109	1.076	0.472*	2.244**	1.067	1.837**
(0.197)	(0.221)	(0.199)	(0.204)	(0.189)	(0.743)	(0.179)	(0.554)
Self Employed							
1.122	0.928	0.903	0.898	0.727	0.989	0.832	0.792
(0.183)	(0.120)	(0.125)	(0.131)	(0.199)	(0.213)	(0.104)	(0.160)
Old/Retired & Other							
1.492*	0.659**	1.106	0.889				
(0.350)	(0.139)	(0.242)	(0.209)				
Number of Adult Men in Household							
0.983	0.936	0.972	0.901	1.093	0.918	0.91	0.943
(0.070)	(0.053)	(0.059)	(0.058)	(0.134)	(0.098)	(0.054)	(0.095)
Number of Adult Women in Household							
0.981	0.909	0.838***	0.866**	1.095	0.944	0.812***	0.857

	(0.075)	(0.055)	(0.057)	(0.062)	(0.144)	(0.109)	(0.052)	(0.097)
Religion (base: Hindu & Other)								
Islam	1.314	0.817	0.514***	0.488***	1.102	0.943	0.386***	0.537
	(0.329)	(0.173)	(0.115)	(0.117)	(0.535)	(0.393)	(0.085)	(0.212)
Caste (base: Forward Caste)								
Other Backward Caste and Backward Caste	0.791	1.125	0.851	0.888	0.76	1.638	0.758	0.753
	(0.181)	(0.215)	(0.168)	(0.187)	(0.336)	(0.626)	(0.149)	(0.273)
Scheduled Caste and Scheduled Tribe	1.156	0.909	0.665*	0.752	0.97	1.238	0.675*	0.615
	(0.293)	(0.191)	(0.143)	(0.171)	(0.451)	(0.484)	(0.145)	(0.229)
Household Wealth (base: Bottom 20%)								
Middle 40%	0.737	1.404**	1.139	1.072	0.825	1.365	1.168	1.016
	(0.139)	(0.217)	(0.183)	(0.181)	(0.242)	(0.317)	(0.181)	(0.227)
Top 40%	0.95	1.169	0.75	0.718*	1.249	1.033	0.87	0.648
	(0.197)	(0.201)	(0.136)	(0.138)	(0.411)	(0.282)	(0.152)	(0.173)
Rural (base: Urban)	0.566***	1.827***	1.423***	1.544***	0.269***	2.205***	1.092	1.773***
	(0.085)	(0.223)	(0.191)	(0.220)	(0.068)	(0.481)	(0.136)	(0.392)
District (base:Bidar)								
Dakshina Kannada	4.436***	0.086***	0.155***	0.093***	4.588***	0.126***	0.186***	0.080***
	(1.030)	(0.017)	(0.033)	(0.024)	(1.643)	(0.041)	(0.038)	(0.030)
Gadag	1.237	0.757	0.698**	0.746*	1.086	0.94	0.766	0.648*

	(0.303)	(0.143)	(0.111)	(0.120)	(0.404)	(0.272)	(0.129)	(0.154)
Gulbarga	1.447	0.517***	0.520***	0.549***	0.925	0.795	0.657**	0.660*
	(0.344)	(0.094)	(0.084)	(0.091)	(0.368)	(0.236)	(0.109)	(0.166)
Mysore	1.375	0.364***	0.329***	0.324***	0.56	0.615	0.287***	0.298***
	(0.340)	(0.066)	(0.055)	(0.056)	(0.265)	(0.182)	(0.049)	(0.078)
Tumkur	2.088***	0.323***	0.232***	0.223***	1.075	0.540**	0.247***	0.179***
	(0.490)	(0.059)	(0.041)	(0.042)	(0.407)	(0.159)	(0.043)	(0.050)
Shimoga	2.083***	0.257***	0.233***	0.220***	1.16	0.518**	0.367***	0.274***
	(0.474)	(0.045)	(0.041)	(0.040)	(0.456)	(0.153)	(0.061)	(0.075)
Constant	0.097***	2.407**	0.657	0.55	0.087***	0.996	2.281**	2.372
	(0.045)	(0.885)	(0.244)	(0.214)	(0.072)	(0.714)	(0.830)	(1.601)
R-squared	0.072	0.109	0.096	0.11	0.168	0.124	0.081	0.115
Likelihood Ratio	157	358	289	312	150	150	248	151
P value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Number of observations	2490	2450	2454	2444	1130	965	2236	962

* p<0.10, ** p<0.05, *** p<0.01; Standard errors in parenthesis