



INTERNATIONAL FOOD POLICY
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IFPRI Discussion Paper01188

June 2012

Women's Property, Mobility, and Decisionmaking

Evidence from Rural Karnataka, India

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PARTNERS AND CONTRIBUTORS

IFPRI gratefully acknowledges the generous unrestricted funding from Australia, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, the Netherlands, Norway, the Philippines, South Africa, Sweden, Switzerland, the United Kingdom, the United States, and the World Bank.

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ABSTRACT

Recent research has shown that a substantial gap exists in asset ownership between men and women. In this paper, we examine the impact of rural women's property ownership on their mobility and autonomy in decisionmaking. The results are based on data collected by the authors in the state of Karnataka, India (The Karnataka Household Asset Survey 2010–11), which has individual-level asset ownership and valuation information. The research was undertaken in order to measure the extent of gender disparities in asset ownership and wealth in the state, and to build on the empirical literature that discusses the importance of asset ownership for women.

Using logistic regression models, we find that owning a house or a plot of agricultural land enhances women's ability to travel to the market, health center, and other places outside the community, and to make decisions about their employment, health, and use of money independently. These processes, while important for women's own welfare, are also instrumental in improving the welfare outcomes of the entire household, particularly those of children. The impact of women's asset ownership and enhanced decisionmaking abilities on children's nutritional outcomes cannot be overstated. The findings of this paper thus bring to focus the need to intensify policy interventions aimed at increasing women's asset base and bridging the gender asset gap.

Keywords: gender, property rights, decisionmaking, mobility, autonomy, India

ACKNOWLEDGMENTS

This paper is from a comparative international research study funded by the Dutch Ministry of Foreign Affairs under its MDG3 Fund for gender equality. The authors acknowledge the excellent research assistance of Garima Dhir and Joan Gass.

This paper is one of a series undertaken by the Tackling the Agriculture-Nutrition Disconnect in India (TANDI) initiative, funded by the Bill and Melinda Gates Foundation.

1. INTRODUCTION

Women tend to be the most commonly landless and are the poorest even among poor households. At the same time, in the rare cases where women have land or a house of their own, it is found to make a critical difference to them and their family's welfare. For instance, such women face less risk of destitution and domestic violence, and improved economic well-being. The welfare of their children also improves. A mother's assets are found to have a greater positive effect on children's nutrition, education, and health than the father's assets. Women also tend to spend more of their income on the children's needs than men. Allotments made to women would therefore benefit both poor women and their families (India, Planning Commission 2006, 60).

Much of the recent literature on women's asset ownership, particularly in developing countries, has emphasized the gender asymmetry in land rights. This is understandable, given the overwhelming centrality of agriculture in the developing world. The interplay of the importance of agriculture and women's immense but often invisible contribution to that sector, with little access to productive resources, has pushed for agrarian reform with an emphasis on ending discrimination against women with respect to ownership of land. The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted by the United Nations General Assembly in 1979, lays out an agenda for equality between men and women and requires its signatories to ensure that discrimination against women in all spheres is abolished, including women's right to own, inherit, manage, and dispose of property. CEDAW established an international bill of rights for women and, in many signatory countries, helped women's access to property (Deere and León 2001). However, three decades after CEDAW, inequalities in property ownership between men and women persist. In *The State of Food and Agriculture 2010–11*, the Food and Agriculture Organization of the United Nations (FAO) emphasizes the existence of a vast gender gap in access to productive resources in the agricultural sector (FAO 2011). The FAO's analysis of the Rural Income Generating Activities database of household surveys from 20 countries shows that female-headed households, on average, operate smaller landholdings than male-headed households, with the differences at their sharpest in Bangladesh, Ecuador, and Pakistan. In addition to land, the report examines a range of productive assets and inputs and finds that women are more or less disadvantaged across all aspects.

The empirical literature on women's asset ownership has largely revolved around its implications for individual and household welfare. Gender discrimination in access to and control over resources and assets has a number of negative implications for both women and girls as well as for their households and families—including limitations on female household bargaining power, weakened poverty buffers, increased poverty and vulnerability of women and children in female-headed households, reduced productivity and growth, and disinvestment in girls (Jones et al. 2010). On the positive side, studies have shown that women's asset ownership increases their ability to exert greater control over their income (Friedemann-Sánchez 2006), their schooling status (Doss 2006; Katz and Chamorro 2003), and the incidence of prenatal care (Beegle, Frankenberg, and Thomas 2001). The links between women's landownership and children's nutritional outcomes are also critical; the Organisation for Economic Cooperation and Development (OECD) Development Centre (2010) has shown that countries where women lack any right to own land have, on average, 60 percent more malnourished children compared with countries where women do have some or equal access to credit and land.

Research shows that child nutritional status is also influenced by women's bargaining power and status within the household, which, in turn, has effects on other long-term outcomes, such as education and health (Allendorf 2007; Park 2007). In South Africa, Duflo (2003) finds that when grandmothers receive pensions, it implies better nutritional outcomes for their granddaughters but not for the grandsons. A study conducted in three developing regions by the International Food Policy Research Institute suggests that if men and women were equally involved in decisionmaking, the rate of underweight children under 3 in South Asia would decline by approximately 12 percentage points, reducing the

number of malnourished children by 13.4 million (Smith et al. 2003). Similar findings are reported in a study among rural and tribal areas of the state of Karnataka; when young mothers are empowered to make decisions and have greater freedom of movement, their children's nutritional status tends to be better (Sethuraman 2008).

Although Agarwal's (1994) work in South Asia made women's land rights an important element of the policy discourse by linking them to economic efficiency, empowerment, and welfare, until recently the empirical evidence of such a linkage has been rather limited. 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 decisions pertaining to their own healthcare, household purchases, and visits to family and friends. The recent literature in India examining the developmental implications of women's asset ownership has broadened its ambit to include other assets in addition to land. Further, the welfare and empowerment arguments have been explored more frequently than the efficiency argument. Across the widely different contexts of Kerala and Uttar Pradesh, two studies find that women who own either land or a house are less likely to experience domestic violence (Bhattacharyya, Bedi, and Chhachhi 2011; Panda and Agarwal 2005). Garikipati (2009) finds in a survey of 291 households in Andhra Pradesh that women laborers with access to productive assets, including agricultural land, livestock, sewing machines, and small retail shops, have greater autonomy in their decisionmaking within the household and in labor markets. The study also found that asset ownership, however, did not influence women's control over household income or lower their share of household chores. Focusing solely on housing in the urban informal settlements of Chandigarh, Datta (2006) finds that the government's joint-titling policy has had several beneficial outcomes for women. It has enhanced their participation in household decisionmaking, access to knowledge, sense of self-esteem, and relative status within the household.

This paper contributes to the literature by examining the relationship between women's property status (owning agricultural land or a house) and their mobility as well as their participation in household decisionmaking processes in rural Karnataka, using a unique dataset that has asset ownership information at the individual level. The remainder of the paper is organized as follows. Section 2 describes the survey design, the dataset, and the study context. The descriptive statistics and the variable definitions are presented in Section 3, and the empirical models are discussed in Section 4. The results are presented in Section 5, and Section 6 concludes.

2. CONTEXT, DATA, AND METHODS

Karnataka, located in southwest India, is the country's eighth-largest state, covering 5.83 percent of the total geographical area. It has a population of 61.1 million, of which 15.7 percent is concentrated in the metropolis of Bengaluru (India, Director of Census Operations Karnataka, 2011). The state has 30 districts across four broad agroclimatic regions—the Northern *Maidan* (plateau); the Southern *Maidan*; the Western Ghats, or *Malnad* (mountainous region); and the coastal region—each of which has distinct characteristics (Table 2.1). The coastal area has the best social and economic indicators (literacy, per capita income, sex ratio, and life expectancy, for example) in the state. It is also the only region in Karnataka where matrilineality is practiced among certain communities (such as *Bunts* and *Billavas*); the rest of the state is largely patrilineal. In the Southern *Maidan*, economic growth is largely concentrated around the capital city of Bengaluru, which attracts migrants from within and outside the state. The Western Ghats receives the highest rainfall in Karnataka and has very fertile land with a high incidence of commercial crops and plantations.

Table 2.1—Sample regions and districts: Key socioeconomic indicators

Region	Characteristics	District	Population, rural (percent)	Sex ratio, rural	Women's work participation rate, rural (percent)	Female literacy, rural (percent)	Human Development Index
Northern <i>Maidan</i>	300 to 600 meters 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 cultivation; sugarcane in irrigated areas.	Bidar	75.10	957	31.0	56.7	0.599
		Gulbarga	67.54	964	42.8	47.5	0.564
		Gadag	64.35	968	46.2	60.4	0.634
Southern <i>Maidan</i>	600 to 900 meters above sea level; lies in River Cauvery basin; irrigated by Cauvery and tributaries; rice, sugarcane, <i>ragi</i> , coconut, and mulberry principal crops.	Mysore	58.65	973	32.2	55.4	0.631
		Tumku	77.52	980	46.8	61.9	0.630
<i>Malnad</i>	Rainfall between 1,000 and 2,500 millimeters (mm); dense rain forest, rich in teak, rosewood, and bamboo; commercial crops include coffee, arecanut, pepper, cardamom, and rubber.	Shimoga	64.50	993	35.8	69.6	0.673
Coastal	Average width of 50 to 80 kilometers (km) and length of 267 km; heavy rainfall in the range of 2,500 to 3,000 millimeters; primarily coconut, areca nut, rubber, paddy grown.	Dakshina Kannada	52.50	1,018	48.7	79.7	0.722
		Udupi	71.64	1,112	36.4	78.4	0.714
Karnataka State			61.43	977	39.9	59.6	0.650

Sources: India, Director of Census Operations Karnataka 2011 (percent rural population, sex ratio, female literacy); Registrar General of India 2001 (women's work participation); Karnataka, Planning and Statistics Department 2006 (Human Development Index).

Although geography is a natural means by which to delineate the districts, political history also provides a lens to understand intrastate variations. 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 (Karnataka, Planning and Statistics Department 2006).¹ These regions were fairly diverse not only in their political and administrative structures, but also in their levels of socioeconomic development. This historical legacy is one of the contributing factors to the interdistrict disparities in social and economic development. According to a composite index prepared by the government of Karnataka, compared to the other regions of the state, Hyderabad Karnataka had the maximum number of backward districts² due to a combination of governance failures under the princely state of Hyderabad and continuous periods of drought experienced in more recent times (Karnataka, Planning and Statistics Department 2006).

This paper uses data from the Karnataka Household Asset Survey 2010–11 (hereafter, the KHAS) collected by the authors under a large research project aiming to examine gender disparities in asset ownership in the state of Karnataka, India. The KHAS is a state-representative survey that collected detailed individual-level asset ownership information. The KHAS design and questionnaire have several innovative features. First, the survey moves away from the typical protocol of interviewing the head of household. Instead, two people were interviewed in each household—a primary respondent and a secondary respondent. A primary respondent was identified by the household members as the adult person best aware of the household’s asset and economic position. This person could be a man or a woman. The secondary respondent was usually the spouse of the primary; if the primary was single, then another individual of the opposite sex was selected as the secondary respondent based on a set of protocols. Second, the survey collected ownership and valuation information for all productive assets, including housing, agricultural land, livestock, agricultural tools and equipment, and nonfarm businesses, as well as for all consumer durables. Contrary to the norm of collecting asset information at the household level, the data were collected for every person within the household, which enables a sex-disaggregated analysis based on individual owners rather than heads of households. Third, for the respondents, the survey collected information about the extent of their transaction and use rights, rights to income from these assets, and their modes of acquisition, as well as financial assets. Finally, the survey collected information on other domains that could potentially affect or be affected by asset ownership, including marital and inheritance regimes, credit, debt, household decisionmaking, and experience of economic shocks. Data on household consumption expenditures and psychological measures of well-being were also collected.

A stratified random sampling design was used to select households with the agroclimatic regions forming the first stratum. Within each region, districts were randomly selected; rural and urban areas were covered in all selected districts with the exception of Bengaluru Urban District, where the survey was conducted only in Bengaluru City. Villages and electoral booths in rural and urban areas, respectively, formed the primary sampling unit from which the households were selected.

The analysis in this paper is restricted to the rural sample of 2,626 households, which forms 64 percent of the overall sample. The relationship between property ownership and decisionmaking and mobility is estimated for all women respondents as well as a subset of currently married women respondents. Typically, such relations are explored only for currently married women on the premise that currently single women are likely to be independent decisionmakers (Allendorf 2007; Garikipati 2009). It is possible, though, that single women live in joint families with in-laws or even adult children, who can have a significant say in decisionmaking, and thus we also include currently single women in our sample.

¹Hyderabad Karnataka and Bombay Karnataka fall in Northern *Maidan*, while Southern *Maidan* is composed of districts that belonged to former Madras Presidency and Old Mysore State. The coastal districts include Dakshina Kannada (including the current Udupi District) and Uttara Kannada Districts, and the Western Ghats include former Coorg State in addition to the districts of Shimoga, Hassan, and Chikkamagalur.

²A committee constituted by the government of Karnataka in 2000 identified districts as being backward based on 35 indicators encompassing agriculture, industry, social and economic infrastructure, and population characteristics (Karnataka, Planning and Statistics Department 2002).

3. SAMPLE DESCRIPTION

A total of 4,677 respondents were interviewed in rural areas, with women making up 53 percent of the sample (Table 3.1).³ Currently, married women dominated the sample of women respondents (81 percent) and were largely secondary respondents, and their husbands were identified as the primary respondent. Widows formed 79 percent of the currently single group, which also included never-married women (7 percent) and those who were divorced, deserted, or separated (14 percent). Married women were, on average, younger and better educated than single women. As expected, agriculture was the dominant occupation for both men and women. Men were more likely than women to be self-employed in agriculture (39 percent versus 4 percent), but women's participation in the agricultural labor market was higher (36 percent for women versus 31 percent for men). Women were more likely to be contributing family workers in agriculture (20 percent for women versus 1 percent for men), implying that they worked on the family farm without any monetary remuneration. Following gendered spheres of responsibilities, men were not reported as homemakers. Married women were more likely to be homemakers than single women (27 percent and 15 percent, respectively), reflecting perhaps that women do not or are not allowed to take up employment unless there is a situation of economic distress in the household.

Table 3.1—Respondent characteristics (percent)

Respondent characteristic	All men	All women	Currently married women	Currently single women
Average age (in years)	45.4	40.7	38.5	49.6
Currently married	92	81	—	—
Widowed	2	15	—	79
Education				
Illiterate	38	59	56	68
Higher primary	14	13	14	10
Completed at least secondary	30	15	16	9
Occupation				
Wage employed (government and private)	7	2	2	4
Self-employed in agriculture (with or without employees)	39	4	3	10
Casual agricultural laborer	31	36	35	45
Contributing family worker in agriculture	1	20	24	3
Homemaker	0	24	27	15
Total number of respondents	2,227	2,450	1,994	456

Source: Authors' calculations, KHAS 2010–11.

Asset ownership information was obtained from a household inventory of all assets. This section was administered to the primary respondent, and ownership information was classified based on his or her response to the question: “To whom does this asset belong?”⁴ This enables the computation of the incidence of asset ownership by sex for major asset categories. This measure shows the proportion of respondents who own a particular asset. Gender parity in asset ownership necessitates that the incidence of ownership be equal across men and women. It is important to note that the descriptive statistics in the paper refer to men and women respondents and not all men and women. This distinction is important because we have information on asset ownership for all members within the household and not just our

³ All descriptive statistics are weighted appropriately.

⁴ Although the primary respondent answered the asset inventory, it is possible that other household members, including the secondary respondent, were present and consulted.

respondents. Thus, we are able to calculate all the asset-related descriptive statistics for all individuals by sex. The descriptive results presented here, however, are restricted to only the respondents, even though they are not always referred to as such.

Table 3.2 shows that the incidence of asset ownership by women was much lower than that by men, with striking differences for land and residences. More than three times as many men owned land as women (75 percent versus 24 percent), and nearly five times as many men owned their homes as women (64 percent versus 13 percent). This pattern is similar across other real estate as well. Livestock is an exception, with no substantive difference in the incidence of ownership by men and women. This can be attributed to livestock generally being reported as held by all household members in the survey. On classifying women by marital status, it is seen that fewer currently married women owned property in the form of land or residence, suggesting that women were usually reported as owners in the absence of their husbands. Men, on average, owned 0.58 acres more than women did, but the difference across women by marital status was not substantive (Table 3.3). Men's property was valued higher than women's, reflecting differences in quality and other attributes that affect the price of the asset in question (location or construction material, for example).

Table 3.2—Incidence of asset ownership, by sex (percent)

Asset category	All men	All women	Currently married women	Currently single women
Principal residence	75	24	13	74
Agricultural land	60	13	6	40
Marginal	28	7	4	21
Small	17	3	1	9
Semi-medium	9	2	1	5
Medium	5	1	0	2
Large	1	0	0	2
Other real estate	19	6	3	16
Livestock	59	52	58	35
Large stock	43	36	41	20
Small stock	8	7	7	6
Poultry	9	9	9	9
Jewelry	12	36		
Total number of respondents	2,227	2,450	1,994	456

Source: Authors' calculations, KHAS 2010–11.

Table 3.3—Characteristics of assets, by sex

Characteristic	All men owners	All women owners	Currently married women owners	Currently single women owners
Average value of agricultural land owned (Indian rupees [Rs])	622,994	459,335	551,664	392,750
Average value of house (Rs)	167,404	156,679	189,523	135,445
Average size of plots owned (acres)	2.74	2.16	2.11	2.19
Irrigated (percent)	26	23	26	22

Source: Authors' calculations, KHAS 2010–11.

Key Variables

Asset Ownership

Women are defined as property owners if they own immovable property in the form of either agricultural land or a house. In rural economies that are largely agrarian, cultivable land is the most valued asset and has economic, political, and symbolic significance for the landowner, representing a permanence no other asset possesses (Agarwal 1994). Owning one's house also provides a certain measure of security that can be important for women, particularly in times of conflict within the household (Panda and Agarwal 2005). Moreover, these forms of property are important components of overall household wealth. Based on the KHAS data, it is seen that in rural areas, land accounted for 62 percent of gross household worth, whereas houses accounted for 25 percent. Thus, women's ownership of property could be potentially significant for the household economy with implications for power structures within the household. Although it would have been interesting to examine the effect of owning some land or a house separately, it was not possible to do so, as the incidence of landownership by women was very low.⁵

A binary indicator variable of ownership was created if the woman was an owner of either land or a house. This is a rather crude measure that suffers from two significant weaknesses. The first is that one compares women who own property with women who do not own property, irrespective of the property status of the households to which they belong. Where decisionmaking processes are concerned, it is possible that women who do not own any assets in propertied households are somewhat worse off than women in non-propertied households. To tease out this effect, following Allendorf (2007), a categorical variable was also constructed with the following categories: (1) women in households that own neither a principal residence nor agricultural land, (2) women non-owners in households that own at least a principal residence or agricultural land, and (3) women owning at least one of these two assets. The empirical results from using the categorical variable were, however, not substantively different from using the binary ownership variable. Hence, only the model with the binary variable is presented here.

The second weakness of the binary ownership variable is that it reflects only the threshold effect of owning property. There is a loss of information not only with respect to what other household members own but also with respect to the attributes of the property owned. A woman who owns a marginal piece of land in a wealthy household is considered an owner just as much as a woman who owns both the house and land in a middle-income household. We use asset values to solve this problem. As noted previously, the KHAS collected valuation data that are used to calculate the proportion of women's gross value of land and house to total household gross value of land and house. This is a continuous variable ranging from 0 to 1 and indicates a woman's relative property position (or asset share) within the household. For household processes, it can be hypothesized that relative wealth is more important than absolute wealth in determining one's status and position within the household hierarchy.

Mobility and Decisionmaking

The decisionmaking outcomes are derived from four domains relating to women's mobility, employment, access to health services, and ability to use their money autonomously. Women's involvement in these decisions is important, as they reflect choices that could have a powerful bearing on their lives and long-term welfare. It also abstracts from the concern that women's asset ownership is viewed as being largely instrumental in nature and carries with it the additional responsibilities of improving household welfare (Rao 2005).

We create a mobility index for women based on questions asking them whether they were usually allowed to travel to the market, health facility, and other places outside the village/community/area. Women could respond that they could go alone or only with someone else or not at all to each of the three places. A score of 1 was given if they could travel alone and 0 otherwise. Based on the scores, two groups

⁵ Livestock ownership by women is not considered here, as livestock was largely reported as being owned by all household members, and thus all our respondents would have been owners in households that possessed any livestock.

were defined: a high-mobility group where women can travel to all three places alone and a low-mobility group where women have to be accompanied by someone else or are not allowed to travel to at least one of the three places. The mobility index has a Cronbach’s alpha of 0.84, which measures the internal reliability of the index. The high alpha indicates that all three questions on mobility are measuring the same underlying concept.

For employment and access to health services, women were asked whether they make the decision on (1) whether, when, and where to be employed, and (2) accessing health services for themselves. They could respond that they decide alone or in consultation or with permission or someone else makes the decision. A dummy variable was created for each of these measures in which women deciding independently were classified as 1 and all other responses were given a 0. Women were also asked if they had any money of their own whose use they could independently decide. A categorical variable ranging from 0 to 2 was created based on the responses: not having own money at all, having own money but without autonomy to decide how to spend it, and having own money with the autonomy to decide about spending it.

The relationships between women’s property status and mobility and women’s property status and decisionmaking are initially explored with the help of descriptive statistics. Table 3.4 suggests that women who own some property have greater mobility and can travel independently to facilities outside their home. Seventy percent of women owning agricultural land or their residence can go alone to the market, health facility, and other places outside the community as compared with 46 percent of non-owning women in households owning these assets and 50 percent of women in households without these assets. It is interesting to note that women in households that do not own any land or their residence seem to be more mobile than women who belong to propertied households. This pattern is consistent across the three locations and within the subsample of currently married women. Overall, currently married women face greater restrictions on their mobility as compared with all women (Table 3.5). This is partially explained by the fact that currently, married women are, on average, younger than other women and less likely to be employed. Further, the presence of a spouse or other adult members in the household may pose additional restrictions on their freedom of movement.

Table 3.4—Asset ownership and mobility, all women (percent)

Asset ownership	Women allowed to travel alone to			
	Market	Health facility	Other places outside community	All three places
Women in households that do not own land or residence	65	63	57	50
Non-owning women in households that own either land or residence	60	53	53	46
Women owners of either land or residence	84	76	76	70

Source: Authors’ calculations, KHAS 2010–11.

Note: Differences in mobility to the three places across women with different ownership status are statistically significant at the 1 percent level.

Table 3.5—Asset ownership and mobility, currently married women (percent)

Asset ownership	Women allowed to travel alone to			
	Market	Health facility	Other places outside community	All three places
Women in households that do not own land or residence	59	57	50	42
Non-owning women in households that own either land or residence	58	51	50	44
Women owners of either land or residence	81	69	66	64

Source: Authors' calculations, KHAS 2010–11.

Note: Differences in mobility to the market between women with different ownership status are statistically significant at the 1 percent level, access to health facility is significant at the 5 percent level, and access to other places is not statistically significant.

Women owning property have a greater say in decisions regarding their employment (72 percent of owners can decide alone as compared with 19 percent of non-owners in propertied households), accessing health facilities for themselves (54 percent of owners can decide alone versus 20 percent of non-owners in propertied households), and use of their money (73 percent of owners can decide how to use their money as compared with 46 percent of non-owners in propertied households). These differences are statistically significant at 1 percent. Similar to the pattern observed for mobility, women who do not own any assets when other household members do seem to have a lesser voice in decisionmaking processes. This suggests that in addition to absolute ownership status, relative ownership status plays a role in delineating household relations. Currently married women are less likely to make decisions alone; their decisionmaking processes are largely consultative in nature, presumably reflecting the presence of a spouse (Tables 3.6 and 3.7).

Table 3.6—Asset ownership and decisionmaking, all women (percent)

Asset ownership	Women's ability to make decisions alone		
	Whether to be employed	Accessing health facility	Spending money on their own
Women in households that do not own land or residence	32	29	48
Non-owning women in households that own either land or residence	19	20	46
Women owners of either land or residence	72	54	73

Source: Authors' calculations, KHAS 2010–11.

Note: Differences in decisions between women with different ownership status are statistically significant at the 1 percent level.

Table 3.7—Asset ownership and decisionmaking, currently married women (percent)

Asset ownership	Women's ability to make decisions alone		
	Whether to be employed	Accessing health facility	Spending money on their own
Women in households that do not own land or residence	20	16	39
Non-owning women in households that own either land or residence	13	16	43
Women owners of either land or residence	36	33	65

Source: Authors' calculations, KHAS 2010–11.

Note: Differences in decisions between women with different ownership status are statistically significant at the 1 percent level.

4. EMPIRICAL SPECIFICATION

We used logistic regression models to assess the impact of women's property status on the decisionmaking process regarding employment, accessing health services, and mobility. For decisions related to use of own money, an ordered logit model was employed to capture the ordinal nature of the outcome variable. The equation to be estimated can be represented as

$$DM_i = \beta_0 + \beta_1 \text{propertystatus}_i + \beta_2 X_{ind_i} + \beta_3 X_{hh_i} + \beta_4 X_{d_i} + \varepsilon_i, \quad (1)$$

where DM_i takes on a value of 0 or 1 for the logit models and is the log of the odds ratio (or the ratio of the probability that the individual woman i is highly mobile or is independent in her decisionmaking to the probability that she is not highly mobile or independent in her decisionmaking). For the ordered logit model, the dependent variable takes on the value of 0, 1, or 2. Women's ownership of land or a house is measured by the *property status* _{i} variable and is estimated separately for the binary indicator of ownership and the value share variable. The vector X_{ind_i} represents the woman's individual characteristics, such as age, marital status (for all women), presence of husband (for currently married women), education, and employment status. Household characteristics (X_{hh_i}) include social grouping (caste, religion), the household's position in the sample wealth distribution to account for overall economic status, and household composition (number of adult men and adult women). The district dummies are represented by X_{d_i} and control for the location-specific unobservable factors that could affect the outcome variables. Equation (1) is estimated separately for all four outcomes described earlier.

We expect age to be positively associated with decisionmaking and mobility. As women become older, they assume different positions within the household (daughter, wife, mother, mother-in-law, and so on); it is likely that a mother-in-law's position in the household is less circumscribed than a daughter-in-law's or even a daughter's position. Being married or living with your spouse could increase the probability of consultations in decisionmaking as opposed to deciding alone. The same could be true with the presence of other adults as well. A higher educational attainment and being employed offer varied social and economic opportunities to women and are expected to have a positive influence on their mobility and involvement in decisionmaking. Participating in the labor market is often important in deciding one's position or status within the household and can also enhance women's confidence and self-esteem. Since women in matrilineal households are likely to have a greater say in decisions as compared with women in patrilineal households, we expect women from Dakshina Kannada and Udipi to have greater autonomy in decisionmaking and mobility when compared with women from other districts. Although it is a priori difficult to be definitive about the effect of social groups across the various outcomes, we expect increasing prosperity to increase women's voice in decisionmaking and their ability to be highly mobile.

A key concern in the current specification is that asset ownership may be endogenous to the decisionmaking processes. Although we have hypothesized that women who own some immovable property are likely to have a greater voice in household decisionmaking, it can also be argued that there are unobserved characteristics that positively impact both decisionmaking and acquisition of property. This would mean that the coefficient estimates of the property ownership variable are biased. One way to deal with the problem of endogeneity is to consider only those properties that are considered exogenous to women's participation in decisionmaking. Property that is self-acquired or available to the woman through her marriage is likely to be endogenous to our outcomes. For example, if a woman can independently decide about her employment or use of her own money, then it may be more likely that she will have acquired property by herself. On the other hand, property she inherits from her natal home or as a widow and property received as a gift or through a government program is less likely to be influenced by her decisionmaking abilities within the household (Garikipati 2009). We consider only those assets that were acquired through a means exogenous to women's participation in household decisionmaking. Table 4.1 presents the modes of acquisition for the analytic samples. It shows that a woman's assets are

most likely to be acquired through marriage—either through her husband’s natal inheritance or upon the death of her husband as a widow.⁶ Although self-acquisition seems high, it does not really reflect the woman’s individual purchasing power. Disaggregating self-acquisition reveals that the source of finance for purchase was mainly through her husband’s or other household member’s earnings. Government housing programs specify that houses have to be registered in women’s names, and thus we find that 20 percent of women’s residences were acquired through government schemes.

Table 4.1—Modes of acquisition (percent)

Mode of acquisition	Principal residence		Agricultural land	
	All women	Currently married women	All women	Currently married women
Natal inheritance, self	10	8	14	22
Natal inheritance, spouse	21	36	30	47
Inherited upon death of spouse	22	0	30	0
Self-acquired	30	32	12	15
Government programs	15	20	4	3
Gift	3	1	3	6
Other	0	3	7	6
Total number of assets	576	259	389	162

Source: Authors’ calculations, KHAS 2010–11.

Note: “Other” includes purchases with credit, purchases of the respondent with other members’ earnings, and the respondent’s spouse’s exclusive earnings.

⁶ It should be noted that these two forms of property acquisition through the marital union have very different legal implications. A widow has a rightful legal claim on her late husband’s property, but a wife does not have any legal claim on the inherited property of her husband. The fact that women (or men) are reported as co-owners on their spouse’s inherited property reveals either a lack of awareness of laws or a more inclusive understanding of ownership that does not take legalities into consideration. Women’s property acquired through their husband’s natal inheritance is also treated as endogenous to our variables of interest.

5. RESULTS

Table 5.1 presents the summary statistics of the variables used in the multivariate analysis. Only 15 percent of women own either agricultural land or a residence. That number drops to 6 percent for the currently married subsample.⁷ On average, for all women, their share in the gross worth of household agriculture land and residence is 7 percent. Only 2 percent of the value of agricultural land and residence owned by their households accrues to currently married women. Husbands were not residing in the household for 6 percent of currently married women; this likely reflects employment-related migration.

Table 5.1—Summary statistics

	All women		Currently married women	
	Mean	Standard deviation	Mean	Standard deviation
Mobility and decisionmaking variables (percent)				
Able to travel to all three places alone	49	0.50	45	0.50
Independently decides about employment	27	0.44	16	0.37
Independently decides on accessing healthcare	25	0.43	17	0.37
Has money and can independently decide on its use	51	–	46	–
Has money but cannot independently decide on its use	21	–	24	–
Does not have money of one's own	28	–	30	–
Property status (percent)				
Owns either land or residence	15	0.35	6	0.24
Woman's agricultural land and house value to total household agricultural land and house value	7	0.24	2	0.13
Occupation status (percent)				
Wage employed	2	0.15	2	0.13
Self-employed	7	0.26	6	0.23
Casual laborer	4	0.49	4	0.49
Contributing family worker	2	0.41	3	0.43
Homemaker and other (student, retired, disabled)	3	0.45	3	0.45
Education level completed (percent)				
Illiterate	56	0.50	54	0.50
Up to primary	14	0.35	15	0.35
Secondary	14	0.35	15	0.36
Higher secondary	12	0.32	13	0.33
Diploma and above	4	0.20	4	0.19
Other individual characteristics (percent)				
Currently single (widowed, divorced/separated, deserted, and never married)	19	0.39	–	–
Currently married	81	0.39	–	–
Age	40.5	13.00	38.6	11.65
Religion (percent)				
Hindu	89	0.32	88	0.32
Muslim	9	0.29	9	0.29
Other	2	0.16	3	0.16

⁷ These numbers refer to only those assets that have been acquired through means exogenous to women's decisionmaking; that is, inherited from natal home or from husband upon his death, acquired as a gift, or acquired through a government program.

Table 5.1—Continued

	All women		Currently married women	
	Mean	Standard deviation	Mean	Standard deviation
Caste (percent)				
Forward and other caste	12	0.32	12	0.33
Backward and other backward caste	59	0.49	58	0.49
Scheduled caste and scheduled tribe	29	0.46	29	0.45
Household wealth (percent)				
Lowest 20 percent	22	0.41	19	0.40
Middle 40 percent	40	0.49	39	0.49
Upper 40 percent	39	0.49	41	0.49
Other household characteristics				
Husband present (percent)	76	0.42	94	0.24
Number of adult men in household	1.4	1.05	1.6	0.99
Number of adult women in household	1.7	0.85	1.6	0.83
District (percent)				
Bidar	14	0.35	15	0.35
Gadag	13	0.34	14	0.35
Gulbarga	14	0.35	14	0.34
Mysore	14	0.35	15	0.36
Tumkur	14	0.35	14	0.35
Shimoga	15	0.35	15	0.35
Dakshina Kannada and Udupi	15	0.35	14	0.35

Source: KHAS 2010–11.

Table 5.2 presents the marginal effects for the logit and ordered logit models for all women (columns 1 to 4) and currently married women (columns 5 to 8).⁸ Robust standard errors are calculated to account for the potential effects of correlation among respondents from the same household.⁹ The independent variable of interest is the binary variable indicating if women own some property in the form of agricultural land or residence.

Focusing on the all-women sample, the results show that even after controlling for individual, household, and other socioeconomic characteristics, women's property ownership is associated with an 8 to 17 percentage point increase in their being able to decide independently regarding their employment, healthcare, and use of own money. Property ownership also reduces the probability that women will not own any money of their own. It also increases the likelihood that women are able to travel alone by 9 percentage points. The results are qualitatively similar for the currently married sample, but the effects are larger for mobility (an increase of 13 percentage points of being in the high-mobility group) when compared with the effects for employment decisions (an increase of 7 percentage points of being able to decide independently). However, in contrast to all women, property ownership does not affect the decision to use own money.

⁸ The marginal effect of a particular variable is computed holding all other variables constant at their means.

⁹ In households where women were identified as primary respondents, it is possible that the secondary respondent was also a woman.

Table 5.2—Incidence of property ownership, mobility, and decisionmaking: Marginal effects

	All women				Currently married women			
	Logit models		Ordered logit		Logit models		Ordered logit	
	Mobility (1)	Employment (2)	Access to health services (3)	Have money and can decide (4)	Mobility (5)	Employment (6)	Access to health services (7)	Have money and can decide (8)
Owner of land or house	0.092*** (0.036)	0.171*** (0.036)	0.083*** (0.031)	0.100** (0.04)	0.134*** (0.051)	0.074** (0.037)	0.081** (0.039)	0.092 (0.057)
Occupation status (<i>base: homemaker and others</i>)								
Wage employed	0.346*** (0.057)	0.195** (0.08)	0.384*** (0.08)	0.452*** (0.025)	0.330*** (0.081)	0.028 (0.069)	0.298*** (0.1)	0.482*** (0.036)
Self-employed	0.194*** (0.041)	0.088* (0.051)	0.134*** (0.049)	0.390*** (0.025)	0.181*** (0.051)	0.034 (0.043)	0.073 (0.046)	0.386*** (0.034)
Casual laborer	0.145*** (0.029)	0.128*** (0.028)	0.085*** (0.025)	0.488*** (0.024)	0.098*** (0.033)	0.065*** (0.022)	0.03 (0.021)	0.487*** (0.026)
Contributing family worker	0.101*** (0.034)	-0.008 (0.036)	0.077** (0.036)	0.212*** (0.031)	0.084** (0.036)	0.004 (0.025)	0.052* (0.028)	0.220*** (0.034)
Education status (<i>base: illiterate</i>)								
Up to primary	0.001 (0.034)	-0.003 (0.029)	0.036 (0.028)	0.028 (0.033)	0.002 (0.037)	-0.012 (0.021)	0.034 (0.026)	0.016 (0.035)
Secondary	0.035 (0.035)	-0.007 (0.031)	-0.001 (0.029)	0.059* (0.034)	0.043 (0.037)	-0.014 (0.022)	0.008 (0.025)	0.052 (0.036)
Higher secondary	0.037 (0.04)	-0.05 (0.033)	0.028 (0.036)	0.077* (0.04)	0.061 (0.043)	-0.018 (0.026)	0.046 (0.032)	0.076* (0.043)
Diploma and above	0.137** (0.056)	-0.052 (0.05)	0.024 (0.055)	0.153** (0.062)	0.137** (0.065)	-0.01 (0.042)	0.029 (0.05)	0.232*** (0.064)
Age	0.004*** (0.001)	0.004*** (0.001)	0.002** (0.001)	0.002** (0.001)	0.005*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.003** (0.001)
Currently married (<i>base: currently single</i>)	-0.098*** (0.035)	-0.437*** (0.036)	-0.295*** (0.036)	-0.162*** (0.037)				
Spouse present					-0.103* (0.054)	-0.150*** (0.044)	-0.153*** (0.047)	-0.230*** (0.057)
Religion (<i>base: Hindu</i>)								
Muslim	-0.206*** (0.058)	-0.048 (0.05)	-0.091** (0.037)	0.086 (0.067)	-0.197*** (0.057)	-0.027 (0.035)	-0.054 (0.033)	0.073 (0.073)
Others	0.03 (0.079)	0.024 (0.065)	0.015 (0.066)	0.055 (0.08)	0.05 (0.081)	0.003 (0.053)	0.049 (0.064)	0.081 (0.086)

Table 5.2—Continued

	All women				Currently married women			
	Logit models			Ordered logit	Logit models			Ordered logit
	Mobility	Employment	Access to health services	Have money and can decide	Mobility	Employment	Access to health services	Have money and can decide
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Caste (<i>base: forward caste and others</i>)								
Backward caste and other backward caste	-0.134** (0.06)	-0.101* (0.056)	-0.087* (0.049)	-0.021 (0.063)	-0.118* (0.062)	-0.049 (0.039)	-0.041 (0.041)	-0.04 (0.066)
Scheduled caste and scheduled tribes	-0.131** (0.062)	-0.031 (0.052)	-0.075* (0.043)	-0.013 (0.065)	-0.099 (0.062)	0.008 (0.04)	-0.017 (0.039)	-0.024 (0.067)
Number of adult men in household	-0.034*** (0.013)	-0.044*** (0.012)	-0.035*** (0.012)	-0.009 (0.013)	-0.028* (0.015)	-0.017* (0.009)	-0.01 (0.01)	0.005 (0.014)
Number of adult women in household	-0.014 (0.015)	-0.019 (0.013)	-0.014 (0.012)	-0.029** (0.015)	-0.006 (0.016)	0.001 (0.01)	-0.009 (0.01)	-0.036** (0.016)
Household wealth (<i>base: lowest 20 percent</i>)								
Middle 40 percent	-0.065** (0.03)	-0.056** (0.024)	-0.058*** (0.021)	-0.083*** (0.029)	-0.028 (0.034)	-0.028 (0.02)	-0.008 (0.022)	-0.038 (0.032)
Top 40 percent	-0.122*** (0.033)	-0.007 (0.028)	-0.104*** (0.024)	-0.056* (0.033)	-0.097*** (0.037)	-0.004 (0.023)	-0.042* (0.024)	-0.015 (0.035)
District (<i>base: Bidar</i>)								
Gadag	0.207*** (0.038)	0.006 (0.04)	-0.050* (0.029)	0.228*** (0.037)	0.219*** (0.042)	0.027 (0.04)	-0.068** (0.027)	0.247*** (0.041)
Gulbarga	0.04 (0.041)	0.128*** (0.045)	0.102** (0.04)	0.047 (0.038)	0.039 (0.046)	0.095** (0.047)	0.134*** (0.047)	0.032 (0.042)
Mysore	-0.138*** (0.041)	0.047 (0.043)	-0.003 (0.034)	0.017 (0.037)	-0.104** (0.043)	0.065 (0.043)	0.041 (0.038)	0.049 (0.039)
Tumkur	0.049 (0.041)	0.110** (0.046)	0.041 (0.035)	-0.018 (0.039)	0.028 (0.046)	0.097** (0.048)	0.033 (0.037)	-0.022 (0.041)
Shimoga	-0.006 (0.041)	0.213*** (0.048)	0.086** (0.039)	0.06 (0.04)	0.007 (0.045)	0.207*** (0.053)	0.123*** (0.044)	0.07 (0.043)
Dakshina Kannada and Udupi	0.102** (0.042)	0.348*** (0.052)	0.213*** (0.046)	-0.04 (0.044)	0.136*** (0.047)	0.372*** (0.059)	0.246*** (0.053)	-0.024 (0.048)
Pseudo R ²	0.086	0.291	0.179	0.137	0.065	0.126	0.098	0.115
Model χ^2	245.3511***	520.3896***	408.122***	568.3909***	155.046***	210.3752***	170.1928***	409.653***
Number of observations	2,427	2,425	2,417	2,422	1,977	1,976	1,972	1,974

Source: Authors' calculations, KHAS 2010-11.

Notes: Robust standard errors in parentheses. ***Significant at 1 percent level; ** significant at 5 percent level; *significant at 10 percent level.

Women's occupational status shows that women who have some form of wage employment have more autonomy in terms of mobility and decisionmaking over employment and healthcare as compared with women engaged in other activities. Across all decisions (with the exception of employment), homemakers have the lowest probability of being independent in their decisionmaking or being highly mobile.¹⁰ Interestingly, women who are unpaid but are contributing to a family farm or business (all-women sample) are 10 percentage points more likely to be in the highly mobile group, 8 percentage points more likely to be able to decide about accessing healthcare independently, and 21 percentage points more likely to own money on whose use they can decide independently. This suggests that women's home care activities and their work in the reproductive economy are completely undervalued and not seen as having any economic contribution, which leads to their underrepresentation in household processes. What is interesting is that the effect of owning property on some outcome variables is lower than the effect of wage employment. In the all-women sample, this difference was statistically significant at a minimum of 5 percent for mobility, access to healthcare services, and use of own money. These results are similar to those found by Allendorf (2007) where the effect of cash employment is greater than the effect of payment-in-kind on women's empowerment in Nepal. Except for the decision related to employment choices, the occupational status results are consistent for the currently married women.

Although we expected education to have a positive impact on women's autonomy in all the domains, we found that it did not have any effect on decisions related to employment and health across the samples. For the all-women sample, the probability of autonomous decisionmaking over the use of money increases by 6 percentage points, 8 percentage points, and 15 percentage points as women attain secondary, higher secondary, and diploma or other higher education degrees, respectively. However, only higher levels of education (that is, above higher secondary) have a positive impact on women's mobility. Having a diploma or other higher degree increases the probability of women being in the highly mobile group by 14 percentage points for both the samples.

Older women are more likely to be autonomous in their decisionmaking and to enjoy higher mobility vis-à-vis younger women. Currently married women have a lower probability of making decisions independently or being able to travel alone when compared with currently single (widowed, divorced, never married, deserted) women. Within the currently married sample, women living together with their husbands have less independent decisionmaking powers.

Religion and caste both have an impact on decisions and mobility. Hindu women have a higher probability of being mobile (in both samples) or of having a voice in accessing healthcare (in the all-women sample) as compared with Muslim women. Women from backward and other backward castes (in both samples), scheduled castes, and scheduled tribes (in the all-women sample) show lower mobility. Caste and religion, however, do not affect women's possession of own money and their ability to use it. Caste also has no impact on women's autonomy in decisionmaking. An increase in the number of adult men is negatively associated with women's mobility and employment (for both samples) and healthcare (for the all-women sample). This could reflect the presence of older sons, siblings, or in-laws who may have an input in decisions that concern women. Interestingly, an increase in the number of women lowers the probability of the respondents' being able to retain some money over which they have exclusive rights. It is possible that any surplus after meeting household consumption and savings requirements is shared across all women and not considered as belonging to a specific individual.

Women in the poorest households (bottom 20 percent by gross physical worth of households) have higher mobility and a higher probability of making decisions alone as compared with women in richer households. For the all-women sample, this result is statistically significant for all decisions, except employment, for the top 40 percent of households. In the currently married sample, this finding is statistically significant only for mobility and access to health services decisionmaking for the top 40 percent of households. The fact that household wealth does not systematically improve decisionmaking or

¹⁰ The 'homemakers' category also includes students, retired, and disabled, who form a negligible percentage (2.3 percent in the all-women sample and 1 percent in the currently married women sample) and, hence, were not treated as a separate classification.

mobility suggests that economic prosperity does not automatically shift gendered attitude and norms. On the contrary, social taboos affecting women may be more pervasive in richer households where women's responsibilities are more likely to be traditionally defined. Due to the influence of the matrilineal culture, we expected women in the coastal districts of Dakshina Kannada and Udupi to have greater autonomy in most decisions and in mobility compared with women in Bidar. Although women in the coastal regions have a higher probability of being more mobile or more involved in decisionmaking for health and employment, the surprising finding is that they are no different than women in Bidar with respect to the use of own money independently.

The relationship between women's property ownership and their autonomy with respect to mobility and decisionmaking is largely robust to changes in how the ownership variable is defined (Table 5.3). The only exception is that for all women, relative share of property does not affect their say in healthcare. Women's share of land and residence, on average, is very low (7 percent); it is possible that this high inequality gets reflected in those decisionmaking processes that are most closely aligned with individual well-being, such as accessing healthcare services. The use of the share variable also allows a more nuanced understanding of relative wealth ownership. Table 5.4 shows the marginal effect of the share variable on mobility and other decisions at differing values, holding all other variables at their means. As the relative share of women's wealth increases, the probability of their being more mobile and autonomous increases, but the rate of change is not constant.

Considering the all-women sample, one sees that for women who own no assets, even a small improvement in their relative wealth status can make a significant impact on their ability to decide on their employment. As their share of wealth increases, it continues to affect their decisionmaking, albeit at a lower rate. For decisions related to employment in the currently married sample, the marginal effect of property ownership is statistically significant only at a lower property share (up to 10 percent) and becomes insignificant as their relative share increases. This is a puzzling result, as it indicates that women are less actively participating in their employment choices as their relative wealth position within the household improves. It could be speculated that attitudes to women's employment are deeply embedded in social and cultural beliefs and are not influenced by women's status within the household as measured by their relative share in property value.

We also examined the predictive power of the logit models presented in Tables 5.2 and 5.3. Across the two samples, for the employment and health equations in the incidence and share models, 80 to 85 percent of the responses were classified correctly. For the mobility equations, 63 to 65 percent of the responses were predicted correctly.

Figure 5.1 plots the change in predicted probability of being in the higher autonomous group across all outcomes as the share of women's wealth increases for the all women sample. When women do not own any land or a house, the predicted probability of being more mobile and making independent decisions about use of own money are higher overall (0.49 and 0.5, respectively) than decisions related to employment and accessing health services for oneself (0.2 for each outcome). Further, as the share of wealth increases, holding other variables at their means, the probability of being in the higher autonomous group increases. The percentage increase in probability as one moves from a share of zero to one is highest for employment decision (80 percent), followed by use of money decision (19 percent), mobility (18 percent) and health decision (15 percent). For currently married women (Figure 5.2), the results are qualitatively similar with the predicted probability of being able to decide about use of money and being mobile higher than the other two decisions. The percentage change in probability is once again highest for the employment decision as women's share increases from zero to one.

Table 5.3—Share of property, mobility, and decisionmaking: Marginal effects

	All women				Currently married women			
	Logit models		Ordered logit		Logit models		Ordered logit	
	Mobility (1)	Employment (2)	Access to health services (3)	Have money and can decide (4)	Mobility (5)	Employment (6)	Access to health services (7)	Have money and can decide (8)
Woman's agricultural land and house value to total household agricultural land and house value	0.091*	0.140***	0.033	0.098*	0.299***	0.077*	0.142***	0.132
	(0.052)	(0.043)	(0.039)	(0.055)	(0.102)	(0.047)	(0.051)	(0.097)
Occupation status (<i>base: homemaker and others</i>)								
Wage employed	0.348***	0.199**	0.389***	0.453***	0.329***	0.025	0.294***	0.482***
	(0.056)	(0.078)	(0.081)	(0.025)	(0.082)	(0.068)	(0.101)	(0.036)
Self-employed	0.191***	0.078	0.137***	0.388***	0.178***	0.032	0.069	0.385***
	(0.042)	(0.051)	(0.049)	(0.025)	(0.051)	(0.043)	(0.046)	(0.034)
Casual laborer	0.147***	0.130***	0.088***	0.489***	0.101***	0.067***	0.032	0.488***
	(0.029)	(0.028)	(0.025)	(0.024)	(0.033)	(0.022)	(0.021)	(0.026)
Contributing family worker	0.100***	-0.011	0.076**	0.210***	0.083**	0.003	0.050*	0.219***
	(0.034)	(0.035)	(0.036)	(0.031)	(0.036)	(0.025)	(0.028)	(0.034)
Education status (<i>base: illiterate</i>)								
up to primary	0.001	-0.003	0.035	0.029	0.004	-0.012	0.036	0.017
	(0.034)	(0.028)	(0.028)	(0.033)	(0.037)	(0.021)	(0.026)	(0.035)
Secondary	0.032	-0.012	-0.003	0.057*	0.041	-0.016	0.005	0.051
	(0.035)	(0.031)	(0.029)	(0.034)	(0.037)	(0.022)	(0.025)	(0.036)
Higher secondary	0.036	-0.054	0.027	0.076*	0.061	-0.019	0.046	0.076*
	(0.04)	(0.033)	(0.036)	(0.04)	(0.043)	(0.026)	(0.032)	(0.043)
Diploma and above	0.136**	-0.056	0.02	0.153**	0.142**	-0.009	0.033	0.234***
	(0.057)	(0.05)	(0.055)	(0.062)	(0.065)	(0.042)	(0.051)	(0.064)
Age	0.004***	0.004***	0.002***	0.002**	0.005***	0.003***	0.002**	0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Currently married (<i>base: currently single</i>)	-0.112***	-0.464***	-0.324***	-0.178***				
	(0.034)	(0.035)	(0.035)	(0.035)				
Spouse present					-0.106*	-0.158***	-0.155***	-0.234***
Religion (<i>base: Hindu</i>)								
Muslim	-0.206***	-0.048	-0.090**	0.087	-0.198***	-0.028	-0.054	0.072
	(0.058)	(0.051)	(0.037)	(0.067)	(0.057)	(0.035)	(0.033)	(0.073)
Christian and others	0.031	0.027	0.016	0.055	0.055	0.006	0.054	0.082
	(0.08)	(0.065)	(0.066)	(0.08)	(0.081)	(0.054)	(0.065)	(0.086)

Table 5.3—Continued

	All women				Currently married women			
	Logit models		Ordered logit		Logit models		Ordered logit	
	Mobility (1)	Employment (2)	Access to health services (3)	Have money and can decide (4)	Mobility (5)	Employment (6)	Access to health services (7)	Have money and can decide (8)
					(0.054)	(0.044)	(0.047)	(0.057)
Caste (<i>base</i> : forward caste and others)								
Backward caste and other backward caste	-0.132** (0.061)	-0.095* (0.056)	-0.084* (0.049)	-0.018 (0.063)	-0.117* (0.062)	-0.047 (0.039)	-0.041 (0.041)	-0.039 (0.066)
Scheduled caste and scheduled tribes	-0.125** (0.062)	-0.019 (0.053)	-0.068 (0.043)	-0.007 (0.065)	-0.096 (0.062)	0.011 (0.04)	-0.016 (0.039)	-0.021 (0.067)
Number of adult men in the household	-0.036*** (0.013)	-0.047*** (0.012)	-0.036*** (0.012)	-0.01 (0.013)	-0.029** (0.015)	-0.017* (0.009)	-0.01 (0.01)	0.005 (0.014)
Number of women in the household	-0.015 (0.015)	-0.02 (0.013)	-0.015 (0.012)	-0.030** (0.015)	-0.006 (0.016)	0.002 (0.01)	-0.009 (0.01)	-0.035** (0.016)
Household wealth (<i>base</i> : lowest 20 percent)								
Middle 40 percent	-0.067** (0.03)	-0.057** (0.024)	-0.057*** (0.021)	-0.084*** (0.03)	-0.031 (0.034)	-0.029 (0.02)	-0.011 (0.022)	-0.039 (0.032)
Top 40 percent	-0.125*** (0.033)	-0.012 (0.028)	-0.103*** (0.024)	-0.059* (0.033)	-0.101*** (0.037)	-0.006 (0.023)	-0.046* (0.024)	-0.017 (0.035)
District (<i>base</i> : Bidar)								
Gadag	0.209*** (0.037)	0.011 (0.039)	-0.047* (0.029)	0.229*** (0.037)	0.221*** (0.042)	0.029 (0.04)	-0.067** (0.027)	0.249*** (0.041)
Gulbarga	0.039 (0.041)	0.126*** (0.044)	0.101** (0.04)	0.047 (0.038)	0.039 (0.046)	0.095** (0.047)	0.134*** (0.047)	0.031 (0.042)
Mysore	-0.139*** (0.041)	0.042 (0.042)	-0.005 (0.034)	0.016 (0.037)	-0.101** (0.043)	0.066 (0.044)	0.043 (0.038)	0.051 (0.039)
Tumkur	0.05 (0.041)	0.111** (0.045)	0.042 (0.035)	-0.017 (0.039)	0.028 (0.046)	0.098** (0.048)	0.033 (0.037)	-0.021 (0.041)
Shimoga	-0.003 (0.041)	0.220*** (0.048)	0.091** (0.039)	0.062 (0.04)	0.009 (0.045)	0.213*** (0.053)	0.126*** (0.044)	0.072* (0.043)
Dakshina Kannada and Udupi	0.106** (0.042)	0.356*** (0.051)	0.221*** (0.046)	-0.037 (0.044)	0.136*** (0.047)	0.377*** (0.059)	0.244*** (0.052)	-0.022 (0.049)
Pseudo R ²	0.085	0.285	0.176	0.136	0.066	0.124	0.099	0.114
Model χ^2	242.6461***	502.5716***	400.1541***	574.54***	154.8185***	205.8612***	164.8317***	411.9272***
Number of observations	2,427	2,425	2,417	2,422	1,977	1,976	1,972	1,974

Source: Authors' calculations, KHAS 2010-11.

Notes: Robust standard errors in parentheses. ***Significant at 1 percent level; ** significant at 5 percent level; * significant at 10 percent level.

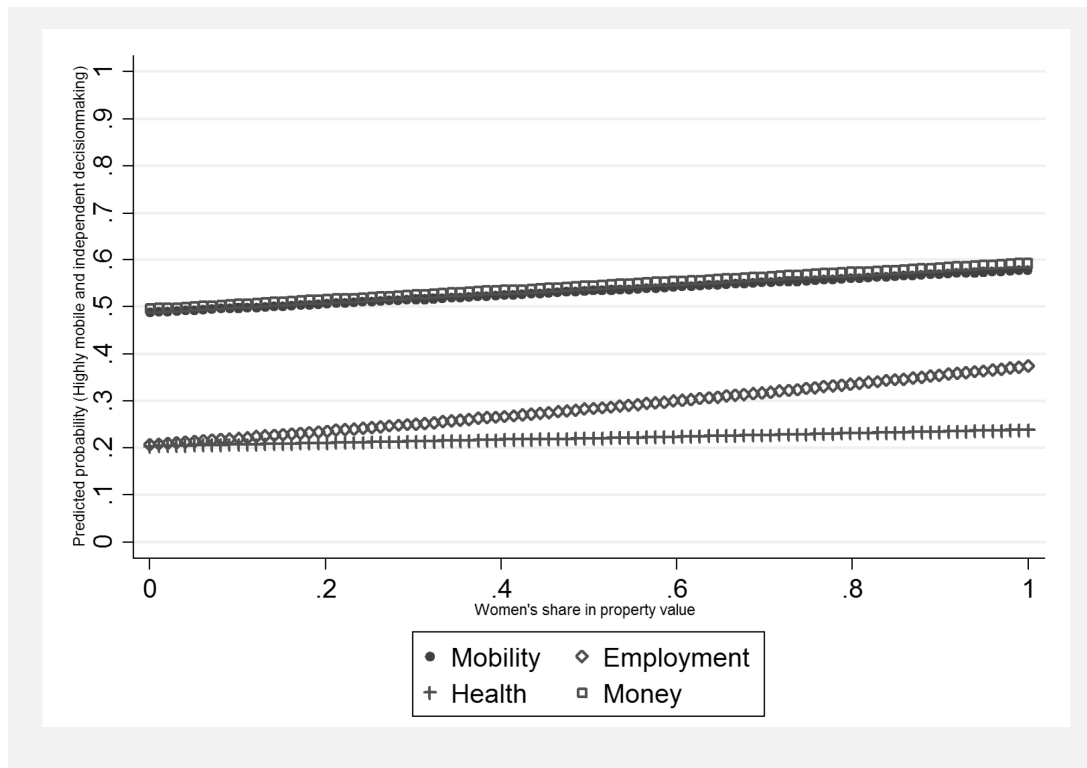
Table 5.4—Marginal effects at different values of share of property

Women's share of property	Marginal effects							
	All women				Currently married women			
	Mobility	Employment	Access to health services	Have money and can decide	Mobility	Employment	Access to health services	Have money and can decide
0	0.091*	0.136***	0.032	0.098*	0.298***	0.076*	0.139***	0.131
0.2	0.091*	0.149***	0.033	0.098*	0.302***	0.085	0.163**	0.133
0.4	0.091*	0.162***	0.034	0.098*	0.297***	0.093	0.19**	0.134
0.6	0.090*	0.174***	0.035	0.097*	0.284***	0.101	0.216**	0.134
0.8	0.090*	0.185***	0.035	0.096*	0.264***	0.11	0.241**	0.133
1	0.089*	0.194***	0.036	0.095*	0.239***	0.119	0.263**	0.131

Source: Authors' calculations, KHAS 2010–11.

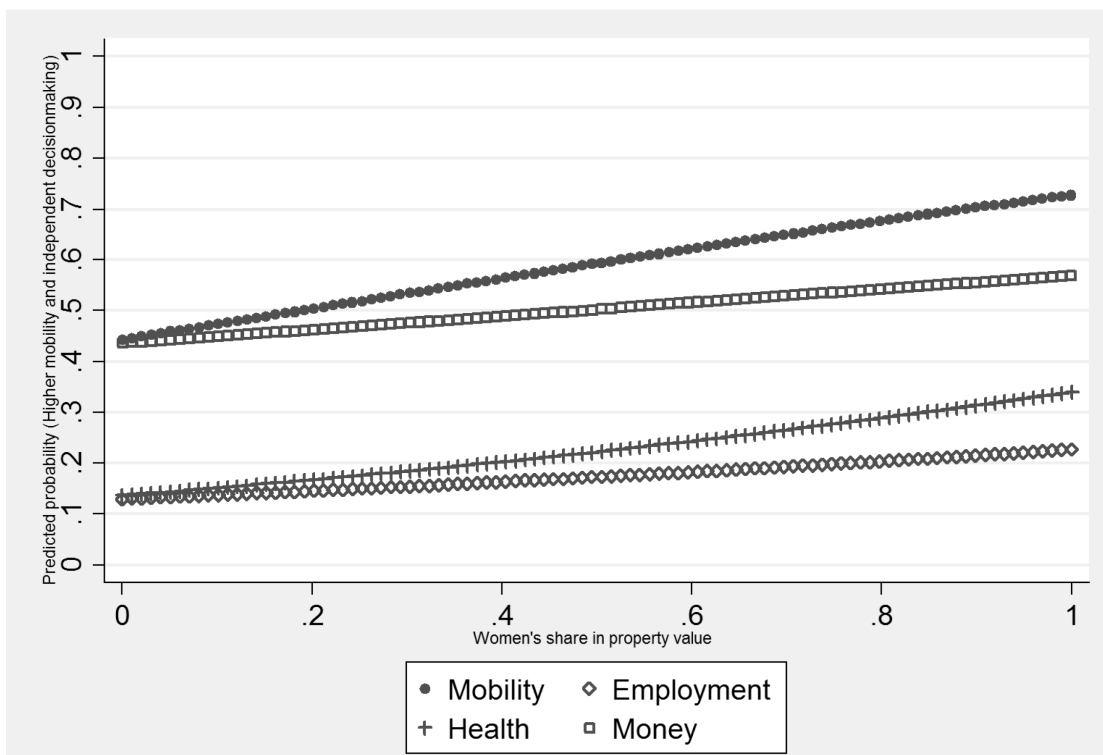
Note: ***significant at 1 percent level; ** significant at 5 percent level; * significant at 10 percent level.

Figure 5.1—Property share, mobility, and decisionmaking: All women



Source: Author's calculation, KHAS 2010-11.

Figure 5.2—Property share, mobility, and decisionmaking: Currently married women



Source: Author's calculation, KHAS 2010-11.

6. CONCLUSION

This paper examines the impact of rural women's property ownership (agricultural land and house) on decisionmaking and mobility outcomes. The decisions we choose to examine—employment choices, accessing healthcare for oneself, having own money and being able to use it, and ability to move outside the home independently—are decisions where women should be active participants in the process. Employment choices can be life-altering, and the other decisions and the ability to move freely outside the home can affect day-to-day activities with implications for welfare. Our findings suggest that women's property ownership can largely enhance their ability to travel alone and independently make decisions about processes that play a significant role in their lives. In addition to the obvious impact on individual welfare, if one considers these decisionmaking abilities as a proxy for relative status or bargaining power within the household, then they also have implications for other development outcomes. The ability to exercise greater control over one's earnings could be particularly important for children's nutrition and health outcomes.

Given its primacy in the agrarian economy and power structures within the household and the larger community, land has been the flashpoint for action to end discrimination against women with respect to property. Not surprisingly, ending such discrimination is not easy, and progress has been painstakingly slow, particularly since one is dealing with a finite resource of great value. The very fact that we could not use landownership as a separate variable in the multivariate models, because of the low incidence of women owning land, is itself telling. Our findings point to the importance of also considering housing as a relevant asset for women that can help bridge the power asymmetry within the household. There has been some recognition of this at the policy level; state and central government subsidized-housing schemes (Ashraya Yojana, Indira Awas Yojana, and Dr. Ambedkar Housing Scheme) exist that mandate individual titling in a woman's name or joint titling in the couple's name. There is, however, a complete lack of monitoring and evaluation of these policy interventions and how they intersect with women's lives.

The study findings illustrate the importance of employment in women's lives. Across most outcomes, almost any form of employment, including employment on the family farm or enterprise, is better for women's status as compared with being a homemaker. This suggests that two different kinds of interventions that need to happen: first, we need to emphasize initiatives that encourage women's skill development and education that will help their entry into the workforce as workers or entrepreneurs. Second, we must make a systematic effort to take on the entrenched notion that women do not contribute to the household because they are involved only in household duties. The idea that contributing to the reproductive economy (such as childcare, cooking, and other responsibilities) is not productive is corrosive to women's self-esteem inasmuch as it gives men an inflated sense of their role in the household. The lack of relationship that is found between education and decisionmaking and mobility could also be driven by attitudes and norms governing the division of labor between men and women. Social change that challenges long-held beliefs cannot happen immediately, but it nevertheless ought to be an important policy objective so as to ensure that women can have a significant say in events that are crucial to their welfare.

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