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Women's Empowerment, Extended Families and Male Migration in Nepal

Insights from Mixed Methods Analysis

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Contents

Tables

ABSTRACT

Women's empowerment is dynamic across the life course, affected not only by age but also by women's social position within the household. In Nepal, high rates of male outmigration have further compounded household dynamics, although the impact on women's empowerment is not clear. We use qualitative and quantitative data from Nepal to explore the relationship between women's social location in the household, caste/ethnicity, husband's migration status, and women's empowerment. The study first examines the factors affecting overall empowerment as measured by the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI), followed by more detailed qualitative and quantitative analysis of how each factor affects individual domains including asset ownership, access to and decisions on credit, control over use of income, group membership, input in productive decisions, and work load. We find that women's empowerment is strongly associated with caste/ethnic identity and position in the household, but this dynamic interacts with husband's migration status. Despite patriarchal norms of high caste groups, high caste women are more empowered than others, reflecting the disempowering effects of poverty and social exclusion for low caste and ethnic groups. Daughters-in-law in joint households are more likely to be empowered when their husbands are residents in the household and disempowered when their husbands are migrants, while wives in nuclear households are more likely to be empowered when their husbands are migrants. While qualitative findings indicate daughters-in-law are disempowered compared to their mothers-in-law, especially in time use, the quantitative results do not show significant differences, suggesting that we need to move toward an understanding of agency over time and intensity of work, rather than simply hours worked. Identifying the factors that contribute to disempowerment of women of different social positions has important implications for the design of interventions and programs that seek to improve women's empowerment.

Keywords: Gender, Caste/Ethnicity, Joint families, Migration, Time use, Women's Empowerment in Agriculture Index

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ACRONYMS

A-WEAI	Abbreviated Women's Empowerment in Agriculture Index
HI	Heifer International
IFPRI	International Food Policy Research Institute
OLS	Ordinary Least Squares
SLVC	Smallholders in Livestock Value Chain
USAID	U.S. Agency for International Development

1. INTRODUCTION

Recognition of the importance of women's empowerment, for both intrinsic and instrumental reasons, prompts researchers and development practitioners to seek understanding of the factors that affect empowerment. Although much of the literature on empowerment has been qualitative, increasingly quantitative indicators are being used to measure empowerment, often to assess the impact of development interventions (see Alkire et al. 2013; Malapit et al. 2019; Yount et al. 2016). However, many efforts to measure empowerment have focused on the spousal couple, ignoring the effect of extended families, and the dynamics of changes over the life cycle.

In the South Asian context in general, and Nepal in particular, extended family structures, or joint households, have long been associated with disempowerment of daughters-in-law in the ethnographic literature (Desai and Banerji 2008; Rashid 2013; Kaspar 2005; Adhikari and Hobley 2015; Singh 2016; Sijapati et al. 2017; see also Allendorf 2007 and Rajkarnikar 2017 for quantitative analysis of this issue). Migration patterns further complicate household dynamics and life cycles, and the effect on women's status and ability to make strategic life choices is not clear. Pervasive male emigration from rural Nepal can increase the sphere of women's decision-making and control over resources, but it may also place additional burden on their time, thereby restricting their agency (Kaspar 2005; Maharjan, Bauer and Knerr 2012; Sijapati et al. 2017). Thus, the impacts on women's empowerment are ambiguous.

To examine how social position in the household interacts with male migration as well as caste and ethnicity to affect both etic and emic perceptions of empowerment, we use qualitative and quantitative data from an impact assessment of a livestock transfer project in Nepal (Janzen, Magnan and Thompson 2018). In an earlier analysis of the qualitative data, Pradhan, Meinzen-Dick and Theis (2019) use data from in-depth life histories and focus groups to identify factors affecting women's property rights. They find that social location within the household plays a significant role, with important changes in women's empowerment across the life cycle. Daughters-in-law report having few property rights, particularly compared to their mothers-in-law; women's property rights significantly increase when the

household splits and she becomes the co-head of household. Although the study identified differences in norms and practices regarding different types of property rights for different castes and ethnic groups, it was not possible to identify the relative effects of caste, ethnicity, and household structure on this aspect of women's empowerment. However, the project also has quantitative data on also other domains of empowerment that are included in the Abbreviated Women's Empowerment in Agriculture Index (A-WEAI), as well as qualitative data on these and other aspects of empowerment. We use this data to examine the effects of caste or ethnicity, women's social location in the household, and husband's migration status on women's empowerment.

In the following section, we discuss conceptions of empowerment and the factors that are likely to affect women's empowerment, based on a review of the conceptual and empirical literature. We then present the methods and data. In presenting the results, we begin with an overview of the factors affecting the overall empowerment score, composed of six indicators, using A-WEAI. Subsequent sections provide a detailed qualitative and quantitative analysis of how each factor affects individual indicators: input in productive decisions, asset ownership, access to and decisions on credit, control over use of income, group membership, and workload. We find that women's empowerment is strongly associated with caste/ethnic identity and position in the household, and husband's migration status plays an important role in this dynamic. Daughters-in-law with resident husbands are more likely to be empowered, but those with migrant husbands are more likely to be disempowered. In contrast, wives in nuclear households are more likely to be empowered when their husbands are migrants. Compared to Brahmin/Chhetri castes, women in the Dalit, Janajati, and Tarai Middle caste categories have lower empowerment scores. The qualitative findings that daughters-in-law feel overworked combined with the quantitative findings that show no statistically significant difference in hours worked based on social location within the household, suggests that we need to rethink how time use affects empowerment, focusing on agency over time and intensity of work rather than simply hours worked.

The final section concludes with a discussion of key findings and the insights provided by combining both qualitative and quantitative data and analysis.

2. CONCEPTUAL FOUNDATIONS

While there are numerous definitions of empowerment, many follow Kabeer's (1999) focus on processes of acquiring the ability to make strategic life choices. In their review of the literature and study of women's empowerment in Nepal, O'Hara and Clement (2018) point out the limitations of applying standardized definitions of empowerment that focus on visible forms of agency, and make the case for attention to critical consciousness (Friere 1970), or "power within" (Rowlands 1995). It is also valuable to go beyond etic definitions and analyses, to also understand emic definitions and localized understandings of empowerment processes (Meinzen-Dick et al. 2019). Whatever definitions are used, gender is not the only basis for power. In Nepal, caste and ethnicity are particularly relevant to understanding empowerment. Nor is empowerment static: it changes over the life cycle, and is affected by social location within the household and whether a woman's husband has migrated or is resident in the household. Finally, wealth and other socioeconomic characteristics also play an important role. It is therefore essential to consider intersectionality to understand empowerment processes (Carr and Thompson, 2014; Colfer et al., 2018).

As elsewhere in South Asia, Nepal's caste system is very hierarchical. Brahmins occupy the highest status, closely followed by Chhetris (equivalent to Kshatriya in the varna system). Dalits are the lowest castes in Nepal and have faced pervasive discrimination and exclusion. There are also numerous ethnic groups, especially in the hill areas, who fall outside the strict limits of the Hindu caste hierarchy, and who also have faced discrimination from the upper caste Hindus.

In mainstream Nepali culture, adherence to patriarchal norms such as restrictions on women's public voice, marriage choice, divorce, freedom of movement, and employment is associated with prestige. Our qualitative analyses found that, compared to other households, women in Madhesi households (people of the plains or Tarai with culture very similar to North India) faced greater gender discriminations, including in restrictions on mobility, such as not being able to visit their natal home, markets, and even participate in local groups (see also Acharya et al. 2010; Bennett et al. 2013; Morgan

and Niraula 1995 and Rajkarnikar 2017). Gender norms are considered more egalitarian among most ethnic groups (Janajati) and Dalit castes than among higher Hindu castes (Acharya and Bennett 1983; Kaspar 2005; Adhikari and Hobley 2015; Rajkarnikar 2017; Sijapati et al. 2017). Some scholars have pointed out that while Dalit and Janajati women enjoy greater freedom in some areas (such as the lack of prohibitions against divorce and remarriage), there is not much difference from high castes in gender relations in other important areas such as inheritance, political and ritual authority (Pradhan 2014; Shah 2018).

However, these findings do not mean that Dalit or ethnic group women are necessarily empowered. While they are less restricted by gender norms on marriage or mobility compared to high-caste Hindu women, they are often disempowered by poverty, exclusion and social stigma affecting their whole household or social group, which limit their access to credit and participation in local groups. Most ethnic groups and Dalits are poorer and have lower Human Development Index than the upper castes (Government of Nepal and UNDP, 2014; see also World Bank/DFID 2006; Bennett et al. 2013). Because of their poverty, they are forced to work for others to earn money for the family. While this gives them greater decision-making power within their household, the work is often low-status and increases their overall workloads. Thus, while higher caste women are often disempowered by gender norms relative to the men in their households, Dalit and Janajati women and men are disempowered in other key areas by poverty and social exclusion.

Social location within the household provides another critical factor in determining the status of women in any society, but particularly in Nepal, where joint families are common. Reviewing the literature and qualitative field work, Pradhan, Meinzen-Dick and Theis (2019) describe a broad process in which women (daughters-in-law) living with their husband's parents and siblings are the most disempowered; women become more empowered when their household splits off and they are identified as a "wife"-- the co-head of a nuclear household. Mothers-in-law are perceived as the most empowered, because they have "power over" daughters-in-law, but women again become vulnerable as they age, especially when they become widows, and worry about who will care for them.

Widespread migration in Nepal, especially of men, further affects women's empowerment. Migration within rural areas of Nepal, to urban centers, and across the border to India may be short-term, with migrants returning for key events such as harvest. Long-distance international migration to the Middle East and Malaysia is usually for a longer time. A number of studies have noted increases in women's mobility and decision-making roles after their husbands migrate, especially among Dalit and Janajati households (Kaspar 2005; Sijapati et al. 2017). However, wives with migrant husbands have added responsibilities and workload, both reproductive and especially productive, which can lead to disempowerment in terms of excessive workloads (Kaspar 2005; Adhikari and Hobley 2015; Sijapati et al. 2017; Rajkarnikar 2017).

While each of these factors—gender, caste or ethnicity, household structure, and migration—affects women's empowerment, they are not experienced individually, but interact in many different ways. Because of this complexity, there are relatively few studies that deal with the intersection of these aspects. In this paper, we draw on quantitative as well as qualitative data to examine the combinations of factors affecting empowerment.

3. METHODS

Data sources

Qualitative and quantitative data come from an impact assessment of Heifer International's (HI) Smallholders in Livestock Value Chain (SLVC) Program in Nepal (Janzen et al. 2016, 2018).[1] Three rounds of survey data and detailed qualitative data were collected in two districts in the Terai region and three districts in the mid-hills region. Quantitative data for this analysis comes from the 2016 survey of HI's impact evaluation, with a total sample of 1,803 women residing in 50 Village Development Committees (administrative units). Surveys were administered at respondent's homes, by trained enumerators fluent in the respondent's language. Approximately 60 percent of the surveys were administered by women enumerators. Every effort was made to ensure that interviews were conducted in private, without other family or other members present. The surveys covered basic demographic information and nine outcomes of interest for the impact assessment: women's empowerment, financial inclusion, aspirations, mental health, assets, income, expenditures, physical health and food security, along with exposure to idiosyncratic shocks and educational attendance of each child. Total survey length was approximately 2.5 hours.

The qualitative research was conducted in four villages that were part of HI's livestock transfer programs. Villages for the qualitative work were purposively selected from among the villages included in the survey sample to include two in the hills and two in the Terai. To examine the effect of caste and ethnicity, sites were selected to include four ethnic groups: Tamang (in Kafaltar, Dhading), Magar (in Arbasing, Palpa), Tharu (in Patwari, Nawalparasi) and Madhesi (in Kisannagar, Mahottari). Two-person field research teams fluent in the local languages and trained in ethnographic methods by Nepā School of

[1]The BASIS-funded evaluation conducted by University of Georgia, Montana State University, Nepā School of Social Sciences and Humanities, and IFPRI was designed as a randomized control trial consisting of three treatment arms and one control group. The intervention package composed of varying combinations the following: group formation, cornerstones trainings, technical trainings, and livestock (goats). The study received ethical approval from Institutional Review Board of the International Food Policy Research Institute, Washington DC (IRB number 00007490). Because this analysis is a cross-sectional exploration of the association between caste, women's social location in the household, and husband's migration on women's empowerment, we do not analyze by treatment arm. The impact evaluation results of this RCT can be found in Janzen et al., 2018.

Social Sciences and Humanities were resident in the villages for 60 days conducting direct observation, semi-structured interviews, life-histories and focus group discussions on topics of empowerment, social capital, property rights, and migration. Attempts were made to select respondents from different ethnic groups, castes (especially Dalits), members of nuclear and of joint households, women from migrant and non-migrant households, and young as well as old women. A total of 188 respondents (148 women) were interviewed. Meetings among the research teams after initial field visits and after full data collection identified the importance of social location and household structure as important factors affecting women's empowerment, and illustrated by cases observed of recent household splits. In our presentation of results, we refer to the qualitative findings along with the quantitative results, noting areas of agreement, where the qualitative data provides insights on the underlying reasons for the quantitative findings, as well as divergence.

Measuring empowerment

In 2012, IFPRI, USAID and OPHI launched the Women's Empowerment in Agriculture Index (WEAI) – a tool that uses Alkire-Foster methodology to measure women's empowerment and inclusion in the agricultural sector (Alkire et al, 2012). To measure women's empowerment, we use the abbreviated version of the tool, the A-WEAI, consisting of six indicators: input in productive decisions, asset ownership, access to and decisions on credit, control over use of income, group membership, and workload (Appendix A, Malapit et al. 2017). Adequacy in each indicator is defined as meeting or exceeding a pre-determined threshold for that indicator. A woman is considered empowered if she is adequate in at least 80 percent of the weighted indicators.[2]

[2] The full A-WEAI includes a Gender Parity Index, computed by comparing women's empowerment scores with that of men in their households. That cannot be computed in our sample because only women were interviewed.

Indicators of caste/ethnicity, social location, and migration status

For the purposes of our analysis, we have grouped the 37 individual castes/ethnic groups/religious groups reported among the survey population, into six broad categories: Brahmin/Chhetri (also referred to as upper castes), Dalit, Janajati, Muslim, Tarai middle castes, and other.[3]

In terms of social location in the household wives were defined as being the co-head of a nuclear household, without in-laws. Mothers-in-law lived with at least one daughter-in-law, and daughters-in-law lived with at least one parent-in-law (i.e. mother-in-law or father-in-law). Unmarried daughters living with their parents were not included in our analysis; they were less than two percent of the entire sample and could not be included in the analysis of husband's residence status.

Husbands are considered to be migrants if they are away from the household on domestic or international, short or long-term migration. Although we would expect men on long-term, international migration to be less involved in household management than domestic, short-term migrants, the categories are not easily distinguishable in practice. Crossing the border to India from the Terai would qualify as international migration, although it may be closer than migration to Kathmandu. Short-term migration, defined in the survey as those who have been away for less than six months, includes those who plan to be away for several years. Thus, our analysis does not distinguish between types of migrants.

Empirical strategy

We are interested in the relationship of women's social location in the household, and whether her husband is a migrant, with her level of empowerment. The basic model that we estimate is:

$$\boldsymbol{Y_i = \alpha + \mu X'_i + \beta Social\ location_i + \gamma Migrant\ husband_i + \delta Social\ location_i \cdot Migrant\ husband_i + \varepsilon_i}$$

where Yi are the empowerment outcomes. We initially use the empowerment score using Ordinary Least Squares (OLS), then unpack empowerment using logistic regressions for the six binary A-

[3]These are grouped as follows: Brahmin/Chhetri (Brahman-Hill, Chhetree, Thakuri), Dalit (Damai/Dholi, Kami, Sarki, Chamar/Harijan/Ram, Dusadh/Pasawan/Pasi, Khatwe, Lohar, Musahar, Tatma/Tatwa)) Janajati (Chepang, Danuwar, Darai, Ghart/Bhujel, Gurung, Kamal, Magar, Majhi, Newar, Rai, Temang, Tharu), Tarai Middle (Bin, Gaderi/Bhedhar, Kalwar, Kathbaniyan, Koiri/Kushwaha, Kumhar, Kumi, Sudhi, Teli, Yadav).

WEAI indicators. Xi is a set of individual- and household-level characteristics, including caste /ethnicity (reference: Brahmin/Chhetri), age, years of schooling, number of children under five years old in the household, number of children age 5-18 in the household, number of adult women and men in the household, and an asset index. Social location is defined as being either a wife (reference), mother-in-law, or daughter-in-law. Migrant husband is a dummy variable indicating whether the husband is in residence (reference) or currently a migrant. The effect on empowerment of varying levels of social location and husband's migration status is captured by δ. All analyses account for complex survey design.

4. RESULTS

Descriptive characteristics of the sample

Individual- and household-level characteristics: The majority of the sample consisted of Dalit (36%), followed by Brahmin/Chhetri (25%), Terai Middle (20%) and Janajati women (11%). Muslim women and women of other castes/ethnicity each made up four percent of the sample.[4]

Of the married women in our sample, 48% were wives, 30% were daughters-in-law, while only 22% were mothers-in law (Table 4.1, Appendix B). For 29% of the women, their husbands were migrants and not living in the household at the time of the survey. Many more of the daughters-in-law (43%) had migrant husbands, while only 7% of the mothers-in-law did so. As expected, daughters-in-law are both the youngest group and the best educated, although even their average education was only 5 years for those with resident husbands and 5.8 years for those with migrant husbands. Compared to wives (who live in nuclear households), mothers-in-law and daughters-in-law lived with more adults in their (extended) households.

Table 4.1: Descriptive statistics of women included in the sample (means and standard errors)

	Wife; Husband in HH	Wife; Migrant husband	Mother-in-law; Husband in HH	Mother-in-law; Migrant husband	Daughter-in-law; Husband in HH	Daughter-in-law; Migrant husband	All women
Age (years)	42.19	34.27***	52.71***	43.58	30.21***	28.60***	39.45
	(0.75)	(0.53)	(0.53)	(1.09)	(0.58)	(0.47)	(0.53)
Years of schooling	2.04	3.35***	0.47***	1.10**	5.08***	5.77***	2.89
	(0.20)	(0.30)	(0.10)	(0.39)	(0.41)	(0.34)	(0.18)
Caste (%)							
Brahmin or Chhetri	0.26	0.22	0.25	0.16	0.27	0.27	0.25
	(0.04)	(0.05)	(0.04)	(0.06)	(0.04)	(0.05)	(0.04)
Dalit	0.33	0.40	0.37	0.42	0.33	0.39*	0.36
	(0.04)	(0.06)	(0.05)	(0.11)	(0.05)	(0.06)	(0.04)
Janajati	0.13	0.10	0.12	0.19	0.09	0.10	0.11
	(0.02)	(0.03)	(0.02)	(0.07)	(0.03)	(0.03)	(0.02)
Muslim	0.04	0.03	0.03	0.00***	0.04	0.03	0.04
	(0.01)	(0.01)	(0.01)		(0.02)	(0.01)	(0.01)
Tarai Middle	0.21	0.21	0.20	0.23	0.21	0.17	0.20
	(0.03)	(0.04)	(0.04)	(0.07)	(0.04)	(0.04)	(0.03)
Other castes	0.04	0.04	0.03	0.00***	0.06	0.03	0.04
	(0.01)	(0.02)	(0.01)		(0.02)	(0.01)	(0.01)

[4] Our sample is not representative of the caste/ethnic groups overall in Nepal which are: Brahmin/Chhetri 31.2%, Dalits 12.6%, Janajati 35%, Terai middle caste 14.5%, Muslims 4.4% and others 0.3%). Therefore, our sample overrepresents the Brahmin/Chhetri, Terai middle caste, Dalit, and other groups, while underrepresenting the Janajati. This non-representation is primarily a function of the areas in which we were working.

	Wife; Husband in HH	Wife; Migrant husband	Mother-in-law; Husband in HH	Mother-in-law; Migrant husband	Daughter-in-law; Husband in HH	Daughter-in-law; Migrant husband	All women
Household characteristics							
Number of adult women in HH	1.26	1.14***	2.67***	2.65***	2.36***	2.33***	1.88
	(0.03)	(0.02)	(0.05)	(0.17)	(0.05)	(0.05)	(0.03)
Number of adult men in HH	1.50	1.30***	2.92***	2.77***	2.33***	2.29***	2.03
	(0.03)	(0.04)	(0.05)	(0.15)	(0.06)	(0.07)	(0.03)
Child under 5 years lives in HH	0.18	0.25**	0.48***	0.65***	0.47***	0.51***	0.35
	(0.02)	(0.03)	(0.03)	(0.08)	(0.03)	(0.03)	(0.02)
Child aged 5-18 years lives in HH	0.73	0.91***	0.75	0.87**	0.83***	0.80**	0.79
	(0.02)	(0.02)	(0.03)	(0.06)	(0.02)	(0.03)	(0.01)
Asset index	-0.29	-0.34	0.27***	0.06***	0.19***	0.23***	-0.03
	(0.07)	(0.06)	(0.06)	(0.13)	(0.09)	(0.07)	(0.05)
Empowerment outcomes							
Empowerment score (0-1)	0.79	0.82***	0.78	0.85*	0.81**	0.79	0.80
	(0.01)	(0.01)	(0.01)	(0.03)	(0.01)	(0.01)	(0.01)
A-WEAI indicators (binary)							
Input in productive decisions	0.92	0.95**	0.96***	1.00***	0.93	0.96**	0.94
	(0.01)	(0.01)	(0.01)		(0.02)	(0.02)	(0.01)
Access to and decisions on credit	0.38	0.44	0.28***	0.52	0.36	0.34	0.36
	(0.02)	(0.04)	(0.03)	(0.10)	(0.03)	(0.04)	(0.02)
Control over use of income	0.93	0.98***	0.94	1.00***	0.94	0.96*	0.95
	(0.02)	(0.01)	(0.02)		(0.02)	(0.01)	(0.01)
Asset ownership	0.95	0.99***	0.96	1.00***	0.93	0.95	0.96
	(0.01)	(0.01)	(0.01)		(0.01)	(0.02)	(0.01)
Group membership	0.67	0.76**	0.65	0.71	0.78***	0.71	0.71
	(0.03)	(0.04)	(0.03)	(0.07)	(0.03)	(0.03)	(0.02)
Workload	0.65	0.59*	0.61	0.68	0.67	0.60	0.63
	(0.03)	(0.04)	(0.04)	(0.11)	(0.04)	(0.05)	(0.03)
Time use							
Time spent on work (total)	8.88	9.24	8.96	8.34	9.01	9.09	8.99
	(0.26)	(0.37)	(0.28)	(0.72)	(0.26)	(0.26)	(0.22)
Productive work (hours/day)	4.25	4.60	4.94***	4.69	4.13	4.54	4.47
	(0.26)	(0.38)	(0.28)	(0.85)	(0.30)	(0.34)	(0.26)
Reproductive work (hours/day)	4.66	4.69	4.02***	3.83	4.90	4.64	4.56
	(0.16)	(0.22)	(0.18)	(0.51)	(0.21)	(0.25)	(0.13)
N	605	254	371	31	307	235	1,803

Note: Estimates are means with corresponding standard errors clustered at the VDC level in parentheses. Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. The empowerment score is the weighted average of the six binary A-WEAI indicators provided in Appendix A. Reference category for t-tests is 'Wife with husband in HH'; t-tests not conducted for the 'All women' category. * = p<0.10; ** = p<0.05; *** = p<0.01

Empowerment outcomes: Overall mean empowerment scores were relatively high and clustered between 0.78 and 0.85. The highest scores were for mothers-in-law with migrant husbands, while the lowest were for mothers-in-law and wives with husbands in the household and daughters-in-law with migrant husbands (Table 4.1).

For the A-WEAI indicators, Table 4.1 presents the percentage of women in each social location category who have achieved adequacy. The proportion of women who had attained adequacy on the input in productive decisions was very high, ranging from 92-100%. It was lowest for wives with resident husbands and reached 100% for mothers-in-law with migrant husbands. Within each social location, it was higher for women whose husbands were migrants. This finding is consistent with our qualitative work that indicates that both wives and mothers-in-law with migrant husbands act as *de facto* heads of households during their husband's absence and take on decision-making responsibilities for agricultural production.

The overall proportion of adequacy on the indicator of access to and decisions on credit was the lowest of all six A-WEAI indicators – only 36% of women achieved adequacy. The highest proportions were among wives and mothers-in-law with migrant husbands. This is consistent with our ethnographic findings that it was easier for women to borrow money from neighbors, money lenders, and savings and credit groups after their husbands migrated, because they are seen as better credit risks as they are likely to receive and manage remittances.

The control over the use of income indicator was also high across all groups of women, averaging 95% of the women achieving adequacy. Within each group, it was higher for women whose husbands were migrants. Wives and mothers-in-law whose husbands are migrants are likely to manage their household's income and expenses in their husband's absence. Women were less likely to achieve adequacy in this indicator when their husbands were resident. The ethnographic data also indicates that earning income is associated with greater control over income, especially when the earned income is based on their *pewa*, or assets to which women have personal rights (Pradhan, Meinzen-Dick and Theis 2019).

The asset ownership indicator also had high levels of adequacy. The quantitative indicator is based on self-reported sole or joint ownership of a productive asset, livestock or land. It does not distinguish between legal ownership (e.g. whose name is on a land title) or the more nuanced categories of family assets, *daijo* (dowry), or *pewa*, which were discussed in the qualitative data (see Pradhan,

Meinzen-Dick and Theis 2019). Wives and mothers-in-law with migrant husbands were again more likely to be adequate in this dimension. In addition to taking on the decision-making responsibilities, in the absence of their husbands, wives and mothers-in-law are significantly more likely to report that they own assets. In contrast, daughters-in-law had the lowest levels of adequacy. They may have entered marriage with very few assets or contributed their assets to the household.

Overall, 71% of the women were members of at least one group and thus were adequate in this indicator. The probability of being in a group was highest for wives with migrant husbands and daughters-in-law with resident husbands. Mothers-in-law with resident husbands had the lowest levels of adequacy in this indicator.

Adequacy in workload was relatively low (63% of women overall). Mothers-in-law with migrant husbands had the highest levels of adequacy in workload, perhaps because they are able to delegate the work to other household members. In contrast, wives with migrant husbands had the lowest adequacy in this indicator, since they are likely taking on productive as well as reproductive roles in the household. This pattern is consistent with findings from other literature (Kaspar 2005; Adhikari and Hobley 2015; Sijapati et al. 2017; Rajkarnikar 2017) and our ethnographic data, and is further reflected in the total time spent on work each day. On average, women spent nine hours per day working, divided about equally between productive and reproductive work. There was little difference across social location groups in the amount of time spent working each day (Table 4.2). This finding is surprising, as the general view from most ethnographic literature and our own qualitative reports is that mothers-in-law are not perceived to do much work because they get their daughters-in-law and other family members to do productive as well as reproductive work. Daughters-in-law with resident husbands spent the most time on reproductive work and the least time on productive work. This may be because their husbands or other family members are doing more of the productive work, although the overall narrative is that daughters-in-law work hard in productive as well as reproductive tasks. We return to a discussion of this finding below. A closer look at the daily activities listed in the qualitative work indicates that it may be difficult

to distinguish between "productive" and "reproductive" activities, as in this description of an hour: "Fed buffalo, cooked and fed snacks for guests and self."

Table 4.2: Descriptive statistics of working hours by social location

		Wife	Mother in law	F-statistic	p	Daughter in law	t-statistic	p
Total hours worked	Mean	8.99	8.91	0.09	0.76	9.04	0.07	0.79
	(SE)	(0.26)	(0.28)			(0.23)		
Productive work hours	Mean	4.35	**4.92**	5.09	0.03	4.31	0.05	0.83
	(SE)	(0.28)	**(0.30)**			(0.30)		
Reproductive work hours	Mean	4.67	**4.00**	15.64	0.00	4.79	0.44	0.51
	(SE)	(0.15)	**(0.17)**			(0.19)		
N		859	402			542		

Notes: Estimates are means with corresponding standard errors clustered at the VDC level. Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. **Bold** indicates statistical significance at the p<0.05 or lower

Factors affecting women's empowerment

The OLS regression results in Table 4.3 allow us to examine the effects of caste/ethnicity, social location in the household, and migration status of the husband, controlling for other factors, including age and wealth (as proxied by the asset index).

Table 4.3: Factors influencing women's empowerment in Nepal

	Empowerment score
Caste reference group: Brahmin/Chhetri	
Dalit	-0.058***
	(0.011)
Janajati	-0.037**
	(0.015)
Tarai Middle	-0.049***
	(0.012)
Muslim	-0.025
	(0.023)
Other castes	-0.041*
	(0.023)
Age (years)	0.007***
	(0.002)
Age squared	-0.000***
	(0.000)
Years of schooling	-0.003**
	(0.001)
Child under 5 years lives in household	0.016*
	(0.010)
Child aged 5-18 years lives in household	-0.018*
	(0.010)
Number of adult women in household	0.002
	(0.006)
Number of adult men in household	0.001
	(0.005)
Social location reference group: Wife	
Mother-in-law	-0.017
	(0.015)
Daughter-in-law	0.030**
	(0.015)
Migrant husband	0.038***
	(0.013)
Mother-in-law * Migrant husband	0.021
	(0.034)
Daughter-in-law * Migrant husband	-0.056***
	(0.020)
Asset index	0.006
	(0.005)
N	1,803
R-squared	0.040

Note: OLS regressions; standard errors (in parentheses) clustered at the VDC level; * = p<0.10; ** = p<0.05; *** = p<0.01
Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. Time use information was collected for previous 24 hours.

All of the groups other than Muslim have lower empowerment scores than the Brahmin/Chhetri caste (reference category). This is surprising in light of the literature cited above, indicating that higher caste women are subject to more restrictive gender norms regarding what they are allowed to do, especially in terms of work, mobility, and participation in social activities. The overall results suggest that, while high-caste women may be disempowered by patriarchal norms, they are still more empowered than women from low castes or other ethnic groups, who additionally face different sources of disempowerment, such as social exclusion. To some extent these results reflect the types of indicators of

empowerment captured by the A-WEAI, which is weighted toward instrumental agency ("power to"), including control over assets and income, participation in decision-making, access to credit, group membership, and time (Malapit et al. 2017) but does not include freedom of movement, respect among household members, self-efficacy, or critical consciousness, which may be more important sources of disempowerment for high caste women (O'Hara and Clement 2018).[5]

The contributions of each of the six indicators to empowerment differ across the caste and ethnic groups (Table 4.4). Among Dalits, lower empowerment scores were driven by less access to decisions on credit and higher workload. The lower decision-making on credit is not likely to be driven by intrahousehold restrictions, as Dalit women work for wages, which gives them more bargaining power within the household (Cameron 1995). Rather, the whole household is likely to lack access to credit owing to their poverty and caste status which restricts their access to formal and informal credit. Dalit women are more likely to engage in wage work in agriculture compared to Brahmin/Chettri women (Acharya and Bennett 1983; Rajkarnikar 2017; Cameron 1995), increasing their overall workload. Compared to Brahmin or Chhetri women, Janajati women were less likely to be adequate in control over use of income and asset ownership. This is surprising because, among all the castes, the Janajatis are considered to have the most egalitarian gender norms (see review of the literature in Pradhan 2014 and Shah 2018) and are more likely than upper caste women to work for wages, which would translate to more decision-making power.

[5] The project-level Women's Empowerment in Agriculture Index (pro-WEAI) includes additional indicators for autonomy in income, self-efficacy, attitudes about intimate partner violence, respect among household members, visiting important locations, and membership in influential groups (Malapit et al. 2019).

Table 4.4: Factors influencing women's empowerment in Nepal, by A-WEAI indicator

	Input in productive decisions	Asset ownership	Access to and decisions on credit	Control over use of income	Group membership	Workload
	(1)	(2)	(3)	(4)	(5)	(6)
Caste reference group: Brahmin/Chhetri						
Dalit	1.268	0.844	0.545***	0.913	0.855	0.390***
	(0.668 - 2.408)	(0.404 - 1.764)	(0.417 - 0.711)	(0.462 - 1.804)	(0.641 - 1.140)	(0.298 - 0.509)
Janajati	0.567	0.457*	0.775	0.309***	1.013	0.807
	(0.273 - 1.174)	(0.197 - 1.061)	(0.540 - 1.114)	(0.151 - 0.635)	(0.682 - 1.505)	(0.554 - 1.175)
Tarai Middle	0.405***	0.393**	0.654***	0.653	0.566***	1.010
	(0.223 - 0.734)	(0.190 - 0.810)	(0.481 - 0.888)	(0.319 - 1.339)	(0.410 - 0.780)	(0.731 - 1.396)
Muslim	0.627	0.842	1.111	2.175	0.549**	1.010
	(0.204 - 1.930)	(0.182 - 3.885)	(0.641 - 1.925)	(0.280 - 16.904)	(0.312 - 0.964)	(0.559 - 1.825)
Other castes	0.245***	0.239***	0.636	0.241***	0.972	1.792*
	(0.103 - 0.584)	(0.088 - 0.647)	(0.361 - 1.118)	(0.097 - 0.600)	(0.529 - 1.787)	(0.910 - 3.530)
Age (years)	1.074	1.039	1.166***	1.002	1.101***	1.005
	(0.985 - 1.171)	(0.934 - 1.157)	(1.097 - 1.239)	(0.896 - 1.121)	(1.042 - 1.163)	(0.955 - 1.059)
Age squared	0.999**	1.000	0.998***	1.000	0.999***	1.000
	(0.998 - 1.000)	(0.998 - 1.001)	(0.997 - 0.999)	(0.999 - 1.001)	(0.998 - 0.999)	(0.999 - 1.001)
Years of schooling	0.889***	0.962	0.985	1.002	1.032*	0.943***
	(0.834 - 0.947)	(0.893 - 1.036)	(0.953 - 1.018)	(0.931 - 1.078)	(0.996 - 1.071)	(0.912 - 0.975)
Child under 5 years in household	1.087	1.326	1.238*	0.908	0.955	1.371**
	(0.668 - 1.770)	(0.767 - 2.294)	(0.974 - 1.575)	(0.550 - 1.498)	(0.744 - 1.225)	(1.077 - 1.745)
Child aged 5-18 years in household	1.229	1.495	1.231	0.947	0.808	0.654***
	(0.748 - 2.018)	(0.851 - 2.626)	(0.939 - 1.613)	(0.533 - 1.685)	(0.612 - 1.067)	(0.498 - 0.859)
Number of adult women in household	0.842	0.781	0.988	0.916	1.103	1.057
	(0.616 - 1.152)	(0.557 - 1.095)	(0.851 - 1.148)	(0.666 - 1.260)	(0.940 - 1.296)	(0.910 - 1.227)
Number of adult men in household	1.003	0.978	1.037	0.896	1.031	1.013
	(0.777 - 1.294)	(0.744 - 1.284)	(0.920 - 1.169)	(0.694 - 1.156)	(0.907 - 1.172)	(0.899 - 1.142)
Social location reference group: Wife						
Mother-in-law	1.771	1.306	0.752	1.152	0.931	0.652**
	(0.804 - 3.902)	(0.551 - 3.094)	(0.515 - 1.099)	(0.540 - 2.456)	(0.637 - 1.363)	(0.450 - 0.945)
Daughter-in-law	1.533	0.895	0.968	1.460	1.445*	1.277
	(0.746 - 3.151)	(0.419 - 1.913)	(0.675 - 1.387)	(0.689 - 3.093)	(0.972 - 2.150)	(0.878 - 1.856)
Migrant husband	1.713	4.429**	1.179	4.827***	1.428**	0.976
	(0.858 - 3.421)	(1.310-14.978)	(0.862 - 1.611)	(1.676 - 13.901)	(1.004 - 2.031)	(0.706 - 1.349)
Mother-in-law * Migrant husband	†	†	1.693	†	0.731	1.636
			(0.752 - 3.810)		(0.301 - 1.773)	(0.683 - 3.919)
Daughter-in-law * Migrant husband	0.998	0.291*	0.788	0.305*	0.441***	0.786
	(0.353 - 2.821)	(0.070 - 1.206)	(0.490 - 1.269)	(0.080 - 1.170)	(0.260 - 0.747)	(0.483 - 1.279)
Asset index	1.496***	1.589***	0.879*	1.298*	1.026	0.941
	(1.135 - 1.972)	(1.160 - 2.178)	(0.769 - 1.004)	(0.973 - 1.733)	(0.895 - 1.175)	(0.826 - 1.073)
N	1,772	1,772	1,803	1,772	1,803	1,803
Pseudo R-squared	0.0747	0.0710	0.0429	0.0684	0.0344	0.0567
Chi-square	59.99	46.31	101.2	49.51	75.29	134.6

Note: Logistic regressions; 95% confidence intervals clustered at VDC level; * = p<0.10; ** = p<0.05; *** = p<0.01. Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. †Mother-in-law*Migrant husband did not vary in input in productive decisions, asset ownership and control over use of income – all women in this category were adequate in these indicators, and dropped from these regressions (N=31). Definitions of A-WEAI indicators are provided in Appendix A.

Tarai Middle women were less likely than high caste women to be adequate in four of the six indicators: input in productive decisions, asset ownership, access to and decisions on credit, and group membership. This is consistent with our ethnographic findings and published reports of stricter gender

norms and more inegalitarian gender relations than hill groups (Bennett et al. 2013; Morgan and Niraula 1995; Rajkarnikar 2017; Sijapati et al. 2017).

The sample included relative few Muslim women, which may be why there was no statistically significant difference in overall empowerment score between them and Brahmin/Chhetri women. Muslims are considered to have stricter gender norms and seclusion rules than Hindus. Muslim women were less likely to be adequate in group membership compared to Brahmin/Chettris, which is consistent with stricter seclusion of women and less mobility, which precludes participation in groups.

Similarly, differences in empowerment scores between Brahmin/Chhetri women and women of the "other castes" category were only marginally significant, but women of other castes were less likely to be adequate in input in productive decisions, asset ownership, and control over use of income, and marginally more likely to be adequate in workload.

Effects of social location on empowerment

The qualitative evidence lays out a strong effect of women's social location on their empowerment: young women who marry in to an extended family have the least control over resources and are at the beck and call of their mothers-in-law (Pradhan, Meinzen-Dick and Theis 2019; see also Kaspar 2005; Adhikari and Hobley 2015; Rajkarnikar 2017; Sijapati et al. 2017; Singh 2016;). The term dukkha is commonly used to refer to the suffering experienced in this stage of life and is a common theme in women's narratives in Nepal (see also March 2002). As one 80-year old Magar widow reported of her early years as a daughter-in-law: "I did whatever my mother-in-law ordered me to do, went wherever she asked me to go. I was never allowed to go where I wanted to go. I was never allowed to do what I wanted. I could only go out freely when I wanted to urinate and defecate."

When the extended family splits and the marital couple set up their own household, women report increased control over income and assets, greater participation in decision-making, and the ability to exercise greater agency. One woman described the difference between living under her mother-in-law and as a wife in a nuclear household: "I now cook whatever I want to… without fear. Earlier, I used to be

scared… I lived under the control of my mother-in-law. I did whatever I was told to do. I was not allowed to cook what I liked." A successful vegetable farmer reported: "After we separated [from the joint household], we consult with each other, whatever we do. Neither he nor I make decisions alone" (quoted in Pradhan, Meinzen-Dick and Theis 2019).

This pattern of greater empowerment when a couple splits off from the extended household is even embedded in a folk song from the Maithili region, in which a young daughter-in-law is berated for breaking a water pot and returns, weeping, to her natal home. Her husband follows and coaxes her back with the promise that things will get better when they separate from the extended family:

> My mother has become old, will die shortly,
> Sister will get married to her home,
> Remained will be my brother, I will separate him,
> We both will rule our regime. (Cited in Leder et al. 2016)

Despite the greater autonomy for women in making a wide variety of decisions after the couple splits off to form a nuclear household, many women report that they still do not make final decisions about selling livestock or other produce. They say they do so to avoid being accused of making bad decisions and to maintain harmony with their husbands—an example of inhabiting social norms of being a "good wife" (Mahmood 2005). This is consistent with the literature that reports wives usually have autonomy on everyday decisions; they consult their husbands for more significant matters, including large financial matters (Sijapati et al. 2017).

Mothers-in-law are perceived as even more powerful than wives, because they have authority over a daughter-in-law, to whom they can assign work. One woman's account shows how her experiences of mobility restrictions changed over her life-cycle. She recalls how as a daughter-in-law her husband's parents would not allow her to leave the homestead and she had to ask permission for everything. After separating from the joint household, her mobility increased and now as a middle-aged woman in charge of her family, she does not have to take permission from anyone, not even from her husband who works in Kathmandu. While there are few restrictions on her mobility, she imposes restrictions on her daughter-in-law, whose husband is abroad. This story illustrates how women who were

passive recipients of gendered norms become its active agents as move from a less powerful position (daughter-in-law) to a more powerful one (mother-in-law)—an example of patriarchal bargaining (Kandiyoti 1988).

Despite the pervasive discussions of the disempowerment of daughters-in-law and the improvement of women's autonomy and ability to exercise agency as they moved into nuclear households and became mothers-in-law in the life histories, focus group discussions, and other ethnographic data collection, statistical analysis of the indicators of empowerment from the survey data do not show significant differences in empowerment based on the social location within the household. The only indicator for which there is a difference is that mothers-in-law are more likely to be inadequate in terms of workload, which is a surprising finding that we explore in more detail below. Differences do emerge, however, when we consider whether the husband is resident or migrant.

Having a migrant husband significantly increases the probability that the woman will have adequacy on the indicators of asset ownership, control over use of income and group membership. Yet, these patterns vary across the social location held by the women in the household.

Wives with migrant husbands are more likely to have higher empowerment scores than wives whose husbands were resident. These findings are consistent with the literature (Kaspar 2005; Adhikari and Hobley 2015; Rajkarnikar 2017; Sijapati et al. 2017) and our ethnographic findings. As the de facto household heads in their husband's absence, wives take up greater responsibility in the management of household affairs. Wives with migrant husbands were more likely to be adequate in asset ownership, control over use of income, and group membership. Our qualitative findings revealed that migrant husbands may ask their wives to purchase land in their wives' names, so the husband need not be there for the sale or purchase (Pradhan, Meinzen-Dick and Theis, 2019). Wives with migrant husbands also have more autonomy over the use of household income, including remittances from their husbands, even though increasing availability of mobile phones and internet allows migrant husbands to be involved in household management.

The positive association with adequacy in group membership could arise from several mechanisms. First, in the absence of her husband and in-laws, norms that govern mobility restrictions may be lessened, and women may be able to participate in group meetings. Second, our qualitative data indicate women may join groups as a form of collective agency, participating in and contributing to the group, but also being able to seek support in times of trouble (see also Rajkarnikar 2017).

While on the whole, wives with migrant husbands may have higher empowerment scores, enjoy more freedom, autonomy and power, they also take on more responsibilities and may have higher workload. As explained in the life history of one woman with a migrant husband and five children at home, after her husband migrated, she got "sukha" [happiness], but "When you have to do everything yourself, it becomes a burden." (See also Kaspar 2005; Adhikari and Hobley 2015; Rajkarnikar 2017; Sijapati et al. 2017). In some cases, husbands or in-laws limit women's freedom of movement and ability to join groups after husbands migrate, either to reduce suspicion of extramarital affairs, or because of workload (see also Sijapati et al. 2017). As one woman reported, her migrant husband said "When there is a lot of work at home, if you get up and walk during such work, who does? It deteriorates at home." Several women stated that they prefer their husbands to live and work in the village rather than migrating for work because it would make their life easier or because they missed their husbands – hinting at both emotional and physical ties that go beyond material conditions.

One of the mediating factors regarding husband's migration is whether he sends sufficient remittances to hire wage laborers to work in the fields (Noray 2017; World Bank/FAO 2018). Our qualitative study indicates daughters-in-law with successful migrant husbands who send remittances may migrate to urban areas, especially if they have school-age children, to get away from in-laws and difficult life in village (see also Maharjan 2015).

There was no difference in the overall empowerment score between wives and mothers-in-law and only one indicator had any significant difference: mothers-in-law with resident husbands were less likely to be adequate with regard to workload than wives. This was a surprising result that we return to

below. There were no statistically significant effects for mothers-in-law with migrant husbands, possibly due to the small sample size for this category.

Whether a husband is a migrant or resident is highly correlated with the empowerment of daughters-in-law. Daughters-in-law with resident husbands were likely to have higher overall empowerment scores than wives with resident husbands. But daughters-in-law with migrant husbands had relatively low empowerment scores, perhaps reflecting a lack of husbands to mediate relations with his family, as in the song cited above. The qualitative data also gave examples of in-laws physically and emotionally abusing women whose husbands were away. As (Kaspar 2005:54) notes: "A husband is the connecting link between his wife and his parents," and she depends on him to advocate for her interests. For a daughter-in-law, having a migrant husband is correlated with being less likely to have achieved adequacy in asset ownership, control over income, and group membership.

Based on statements about the dukkha (suffering and workload) in the qualitative work, we had anticipated that daughters-in-law would be inadequate in this indicator because of high workloads. But there were no statistically significant results on time use for daughters-in-law with resident husbands. In such cases, we hypothesize that the husband's presence has a protective effect on his wife's adequacy in workload.

When the husband is a migrant, even after controlling for other factors like caste, age, and schooling, daughters-in-law have the lowest empowerment scores of all the social location-husband's residence categories. The lower overall empowerment scores for daughters-in-laws with migrant husbands is driven by their lower adequacy in asset ownership, control over use of income and group membership. When a woman marries and moves in with her husband's family, the assets she brings to marriage may be taken to help maintain the household's expenses or pay for emergencies, or her personal assets may be kept in her parents' house until she has more control over assets (Pradhan, Meinzen-Dick and Theis, 2019). Furthermore, daughters-in-law may have limited access to the remittances their husbands send or to household-generated income, which is often managed by her in-laws (Kaspar 2005; Rajkarnikar 2017). The lack of group membership for these women does not apply to daughters-in-law

with resident husbands. It may reflect greater mobility restrictions on daughters-in-law when their husbands are absent, and not able to advocate for them.

Thus, the quantitative findings suggest that having a migrant husband is empowering for women in nuclear households, but disempowering if they live with their in-laws. These findings are consistent with our ethnographic findings and with the literature (Kaspar 2005; Adhikari and Hobley 2015; Rajkarnikar 2017; Singh 2016; Sijapati et al 2017 for Nepal and Desai and Banerji 2008 in India, and Rashid 2013 in Bangladesh and in other countries, e.g. Menijvar and Agadjinian 2007; Arias 2013).

Effects of other individual and household characteristics

Finally, it is worth noting the relationship of empowerment with some of the other individual and household characteristics. Increasing age was positively associated with empowerment score. Older women were more likely to have access to and decisions on credit and be members of groups. Although the effect of the age squared on empowerment score was very small, it was nonetheless negative, suggesting that empowerment status increases with decreasing marginal returns and along the life course. Our life history data indicates older women may even become vulnerable as they become dependent on others to take care of them in their old age (see Pradhan, Meinzen-Dick and Theis 2019). Analyzing nationally representative data, Rakjanikar (2017) similarly finds decision-making and workload increases with age then declines, generally after 40.

Age was positively associated with all of the empowerment indicators, but statistically significant only for access to and decisions on credit and group membership. As with overall empowerment, for three of the indicators--input in productive decisions, access to and decisions on credit and group membership--age squared has a negative relationship. Thus, age is positively correlated with these indicators up to some age, and then the correlation decreases. As women get older, they move from primarily reproductive roles such as caring for young children, and spend more time on productive activities. Women may also begin delegating domestic work among their daughters and daughters-in-law. The greater likelihood of

group membership for younger women may reflect the effect of programs such as Healthy Mothers' Groups in each ward.

More years of schooling is negatively associated with being empowered, although the magnitude of the effect is very small. This finding likely reveals a cohort effect since younger women in the sample have had better access to education than older women.[6] And even the better educated women have few years of schooling. This cohort effect is further reflected in the results on time spent on work. Women with more years of schooling are more likely to work in the reproductive sphere and less likely to work in productive one because they are still caring for very young children.

Reconciling qualitative and quantitative results

The area in which our quantitative data do not seem to match our qualitative data and the literature is with regard to the workloads of mothers-in-law and daughters-in-law. We had expected to find mothers-in-law more likely to be adequate in the workload indicator, but in fact we find the opposite to be true. The quantitative data on workloads do not seem to support the notion that mothers-in-law turn over much of their work to their daughters-in-law.

One of the reasons is that the cutoff for adequacy in workload (10.5 hours) is right in the middle of the distribution of hours worked. Many women are just slightly above or below the cutoff. To address this, we explore the relationship of the social location and migrant status with hours worked, rather than the binary indicator of whether they are above the threshold. We see that the number of hours worked per day are similar across the three groups of women. The key differences are that daughters-in-law spend more of their time in reproductive work and less in productive work compared to wives and mothers-in-law.

We run regressions similar to those in Equation 1, using hours worked per day as the dependent variable.[7] We then rerun a similar set of regressions, distinguishing hours spent in productive work and

[6]The correlation between age and schooling is the correlation is -0.5175

[7] Derived from a detailed time allocation module of activities reported during the previous 24 hours

those spent in reproductive work. The results presented in Table 4.5 show no statistically significant differences across women in the different social locations.

Table 4.5: Factors influencing women's time use in Nepal

	Total time spent on work (hours)	Time spent on productive work (hours)	Time spent on reproductive work (hours)
	(1)	(2)	(3)
Caste reference group: Brahmin/Chhetri			
Dalit	1.155***	1.495***	-0.338*
	(0.209)	(0.211)	(0.189)
Janajati	-0.261	0.047	-0.201
	(0.290)	(0.293)	(0.261)
Tarai Middle	0.093	0.045	0.047
	(0.244)	(0.246)	(0.220)
Muslim	0.628	0.341	0.267
	(0.444)	(0.449)	(0.401)
Other castes	-0.723	-1.100**	0.382
	(0.448)	(0.453)	(0.404)
Age (years)	0.029	0.094**	-0.063*
	(0.040)	(0.041)	(0.036)
Age squared	-0.000	-0.001***	0.001
	(0.000)	(0.000)	(0.000)
Years of schooling	0.072***	-0.115***	0.184***
	(0.026)	(0.026)	(0.024)
Child under 5 years lives in household	-0.462**	-0.234	-0.212
	(0.188)	(0.190)	(0.170)
Child aged 5-18 years lives in household	0.518**	0.445**	0.087
	(0.205)	(0.208)	(0.185)
Number of adult women in household	-0.083	-0.104	0.018
	(0.117)	(0.119)	(0.106)
Number of adult men in household	0.019	0.090	-0.049
	(0.094)	(0.095)	(0.085)
Social location reference group: Wife			
Mother-in-law	0.389	0.470	-0.150
	(0.290)	(0.293)	(0.261)
Daughter-in-law	-0.118	0.267	-0.410
	(0.288)	(0.291)	(0.259)
Migrant husband	0.030	0.309	-0.260
	(0.257)	(0.259)	(0.232)
Mother-in-law * Migrant husband	-0.839	-0.714	0.023
	(0.667)	(0.674)	(0.602)
Daughter-in-law * Migrant husband	-0.075	0.086	-0.096
	(0.383)	(0.387)	(0.345)
Asset index	0.194*	0.225**	-0.041
	(0.102)	(0.103)	(0.092)
N	1,803	1,803	1,803
R-squared	0.057	0.088	0.066

Note: OLS regressions; standard errors clustered at the VDC level; * = p<0.10; ** = p<0.05; *** = p<0.01
Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. Time use information was collected for previous 24 hours.

The lack of significant quantitative differences in workload differs from the qualitative narratives, in which women recall the long hours they had to work as daughters-in-law as including productive work – tending to animals, collecting fuel, water, fodder and working in the fields. It is possible that some of

this “productive” work was intermingled with “reproductive” tasks and reported as such in the time use surveys. In the qualitative reports on women’s time, they often indicate that they were cooking and tending animals in the same block of time, for example. One woman contrasted her situation while living in a joint household and after the splitting of the household. She said that she had a very hard time while she was living with her in-laws. She had to work hard, taking care of the goats, fetching water, fodder and firewood, and doing other things the whole day. But she was not properly fed, only corn and soya beans and cold rice. She could not say anything even though she was angry. “After we separated (lived in a different household), it is very convenient and easy for me now. I can eat if I want to, not eat if I do not want to, whether I work or not is in my hands.”

While the qualitative findings are not necessarily representative, because of the limited sample size, they provide important insights into how time use, and empowerment are related. The issue seems to be not only that daughters-in-law feel they are doing many more hours of work, but also that they have little or no control over their work. In other words, they have less autonomy over work (and many other things, including mobility) and thus less agency. The mothers-in-law assign the household tasks and ensure that they are done. The daughter-in-law does not choose what tasks she does or when she does them. We cannot disaggregate the quantitative data into specific tasks, but the qualitative work suggests that daughter-in-law’s lack of agency over their work is at least partially responsible for their complaints. They are assigned the least pleasant tasks and may be scolded or sometimes even beaten if they are not done according to their mother-in-law’s demands. Our qualitative data on what women did often indicates daughters-in-law multitasking, supporting the idea of intensity of work. It is also the case that in the quantitative data, each woman is providing information on her own time use and it may be that mothers-in-law are working more hours than is perceived by the daughters-in-law. These findings suggest that we need to be considering more than just hours worked as an indicator of empowerment, but also to consider agency over work.

We identify four caveats to the interpretation of our quantitative findings. There are few mothers-in-law with migrant husbands in our sample. This may be because the average age of migrants working

abroad is estimated to be 30 (Sharma et al. 2014) or 31 (World Bank/FAO 2018). In addition, our quantitative analysis is limited to the A-WEAI indicators of empowerment. Indicators such as freedom of movement or respect among household members would be useful to further unpack the complex relationship between social location and husband's residence status. Third, although we examine the effects of caste/ethnicity, social location and husband's residence status in separate analyses, we expect that caste/ethnicity also interacts with social location and husband's residence status but are unable to analyze this hypothesis further due to limited sample size. Finally, the analysis does not account for the relationship between caste/ethnicity and migration status, especially if we expect that economic opportunities may positively influence individuals of lower castes and ethnic groups to migrate for work compared to individuals of higher castes.

5. CONCLUSIONS

Combining qualitative and quantitative evidence on women's empowerment provides important insights into the relationships with caste and ethnicity and with social location within the household and husband's status as a migrant.

First, while caste and ethnicity are important factors affecting women's empowerment, the relationships are complex. The indicators in the A-WEAI suggest that Dalit and Janajati women are less empowered than Brahmin/Chhetri women, which does not match the ethnographic literatures. The patterns differ across the various indicators of empowerment and the qualitative findings suggest that the A-WEAI may be missing components of empowerment that are relevant in rural Nepal. Brahmin/Chhetri women are often considered disempowered because of the social restrictions on their mobility and participation in civil society, but this is not well captured in the A-WEAI. Nonetheless, our results indicate that Dalit and Janajati women are disempowered due to poverty and social exclusion, rather than primarily through patriarchal gender norms. Further analysis of men's as well as women's levels of empowerment, and more extensive measures of empowerment such as pro-WEAI can help to distinguish between these sources of disempowerment, and help guide interventions to address the appropriate root causes.

Second, the other finding that comes out of the mixed methods approach is that we need to better understand the meaning of particular indicators. For example, survey data on reported "ownership" of assets needs to be complemented by understanding of how this relates to control over assets, e.g. who makes decisions, and who can do what with the assets. Apparent divergence between qualitative and quantitative data on workload calls for closer examination of time use, work, and agency. The narrative among daughters-in-law is not only that that they work hard, but also that they have no control over their work and often receive few of the benefits, complaining that they are not well fed. This narrative is not simply about the hours worked, but also about agency over their labor and about their control over the outputs. The complaint that they work particularly hard is not reflected in the quantitative data on hours

worked; the hours worked reported by daughters-in-law are only marginally higher than those reported by mothers-in-law. But the time use data doesn't capture how hard they worked on a particular task nor how they felt about it. A daughter-in-law working for an hour with her mother-in-law standing over her telling her to work harder and faster to get on to the next task will be perceived very differently from the hour that the mother-in-law worked as she will have had more choice over which tasks to do and may be able to work more leisurely. More nuanced ethnographic studies, such as participant observation, can shed light on these issues.

Finally, the findings suggest that the migration status of the husband plays a role in the levels of women's empowerment. Wives in nuclear households are more empowered if their husband is a migrant; they may have higher workloads, but they also have more control over agricultural production and income. For daughters-in-law, their empowerment is higher when their husband is resident, which may be because he is able to mediate the influence of his family on his wife's empowerment. In particular, when he is resident, she is more likely to be adequate in both group membership and workload. The qualitative evidence suggests that the dynamic story may be more complex, depending on the relations within the family and the level of remittances. Daughters-in-law may be willing or eager for their husbands to migrate, even though they will suffer living under their mother-in-law's control, because the income that the migrant husband earns may allow the couple to then separate and become an independent household. Not all migration is successful; some men are not able to save money or send remittances, which then leaves the women potentially worse off.

The story of women's empowerment in Nepal is a dynamic one and will continue to change. It will be important to continue to analyze these changes over time and mixed methods approaches will be critical to fully understanding what is happening.

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Appendix A: Definitions and weighting of A-WEAI indicators

Domain	Indicator (Weight)	A-WEAI definition
Production	Input in productive decisions (1/5)	Adequate if individual participates in and makes decisions, has input in decisions, or feels she could make decisions (if desired) about at one agricultural activity
Resources	Ownership of assets (2/15)	Adequate if household owns at least one productive asset, livestock or land, and the respondent (individually) has at least some ownership of an asset*
	Access to and decisions about credit (1/15)	Adequate if individual makes decisions about at least one source of credit accessed by her household
Income	Control over use of income (1/5)	Adequate if individual participates in and has input in decisions about income generated from an activity or she/he makes decisions, has input in decisions, or feels she/he could make decisions (if desired) about employment or major household expenditures
Leadership	Group member (1/5)	Adequate if individual is an active member of at least one group
Time	Workload (1/5)	Adequate if individual worked fewer than 10.5 hours during the previous day.

Note: For full details on the A-WEAI are available in Malapit et al., 2017; *Ownership of assets indicator deviates from A-WEAI

Appendix B: Descriptive statistics of women in the sample, by social location and caste (means and standard errors)

	Wife				Mother-in-law				Daughter-in-law			
	Brahmin/ Chhetri	Dalit	Janajati	Tarai Middle	Brahmin/ Chhetri	Dalit	Janajati	Tarai Middle	Brahmin/ Chhetri	Dalit	Janajati	Tarai Middle
Age (years)	40.43	40.02	41.09	39.54	53.28	51.86	51.45	50.67	29.65	30.30	28.30	29.62
	(0.72)	(0.64)	(1.28)	(0.87)	(0.80)	(0.76)	(1.18)	(1.13)	(0.66)	(0.60)	(1.21)	(0.85)
Years of schooling	4.03	2.15	1.62	1.68	0.99	0.52	0.31	0.11	7.76	5.30	3.00	3.84
	(0.29)	(0.19)	(0.30)	(0.23)	(0.23)	(0.12)	(0.19)	(0.06)	(0.36)	(0.28)	(0.53)	(0.45)
Number of adult women in HH	1.29	1.20	1.23	1.19	2.65	2.75	2.59	2.51	2.47	2.44	2.25	2.16
	(0.04)	(0.03)	(0.05)	(0.04)	(0.09)	(0.09)	(0.15)	(0.09)	(0.07)	(0.06)	(0.10)	(0.09)
Number of adult men in HH	1.56	1.42	1.36	1.33	2.99	2.91	2.90	2.82	2.32	2.34	2.25	2.30
	(0.06)	(0.04)	(0.06)	(0.05)	(0.10)	(0.09)	(0.16)	(0.10)	(0.09)	(0.09)	(0.18)	(0.11)
Child under 5 years lives in HH	0.13	0.22	0.23	0.21	0.49	0.43	0.55	0.60	0.49	0.47	0.57	0.45
	(0.02)	(0.02)	(0.04)	(0.03)	(0.05)	(0.04)	(0.07)	(0.05)	(0.04)	(0.04)	(0.07)	(0.05)
Child aged 5-18 years lives in HH	0.72	0.82	0.75	0.77	0.55	0.88	0.86	0.78	0.74	0.85	0.79	0.87
	(0.03)	(0.02)	(0.04)	(0.03)	(0.05)	(0.03)	(0.05)	(0.05)	(0.04)	(0.03)	(0.06)	(0.03)
Husband is migrant (any)	0.27	0.34	0.25	0.30	0.05	0.09	0.12	0.08	0.44	0.48	0.45	0.38
	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)	(0.02)	(0.05)	(0.03)	(0.04)	(0.04)	(0.07)	(0.05)
Asset index	0.01	-0.28	-0.59	-0.57	0.60	0.29	-0.03	-0.07	0.36	0.37	-0.33	0.03
	(0.05)	(0.04)	(0.08)	(0.06)	(0.08)	(0.07)	(0.14)	(0.10)	(0.07)	(0.07)	(0.15)	(0.09)
Empowerment outcomes												
Empowerment score (0-1)	0.83	0.79	0.80	0.77	0.83	0.75	0.81	0.79	0.84	0.79	0.77	0.80
	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.03)	(0.02)
Access to and decisions on credit	0.47	0.36	0.39	0.37	0.31	0.23	0.31	0.37	0.43	0.29	0.45	0.32
	(0.03)	(0.03)	(0.05)	(0.04)	(0.05)	(0.03)	(0.07)	(0.05)	(0.04)	(0.03)	(0.07)	(0.05)
Group membership	0.77	0.73	0.71	0.56	0.70	0.63	0.75	0.63	0.80	0.76	0.75	0.70
	(0.03)	(0.03)	(0.05)	(0.04)	(0.05)	(0.04)	(0.06)	(0.05)	(0.03)	(0.03)	(0.06)	(0.05)
Control over use of income	0.97	0.96	0.89	0.94	0.97	0.96	0.94	0.93	0.97	0.97	0.83	0.96
	(0.01)	(0.01)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.01)	(0.05)	(0.02)
Asset ownership	0.97	0.98	0.94	0.94	0.99	0.98	0.98	0.93	0.97	0.95	0.89	0.91
	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)	(0.03)
Input in productive decisions	0.94	0.96	0.94	0.89	0.98	0.99	0.94	0.93	0.95	0.97	0.89	0.91
	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	(0.01)	(0.04)	(0.03)
Workload	0.67	0.50	0.70	0.72	0.74	0.44	0.69	0.73	0.70	0.50	0.66	0.73
	(0.03)	(0.03)	(0.05)	(0.03)	(0.04)	(0.04)	(0.07)	(0.05)	(0.04)	(0.04)	(0.07)	(0.04)
Time use												
Time spent on work (total)	8.85	9.80	8.12	8.54	8.21	9.80	8.13	8.46	8.88	9.73	8.20	8.74
	(0.22)	(0.19)	(0.35)	(0.24)	(0.35)	(0.30)	(0.48)	(0.39)	(0.26)	(0.25)	(0.50)	(0.29)
Productive work (hours/day)	3.94	5.33	4.06	3.76	3.99	6.07	4.25	4.53	3.43	5.42	3.69	4.14
	(0.21)	(0.21)	(0.33)	(0.25)	(0.29)	(0.32)	(0.47)	(0.34)	(0.24)	(0.27)	(0.50)	(0.30)
Reproductive work (hours/day)	4.95	4.48	4.27	4.79	4.22	3.76	3.88	3.93	5.44	4.36	4.64	4.68
	(0.20)	(0.18)	(0.25)	(0.22)	(0.29)	(0.22)	(0.38)	(0.33)	(0.29)	(0.24)	(0.42)	(0.27)
N	214	298	102	180	97	150	51	83	147	193	53	104

Note: Estimates are means with corresponding standard errors clustered at the VDC level in parentheses. Social locations are defined as follows: Wife: no in-laws in the household; Mother-in-law: at least one daughter-in-law in the household; Daughter-in-law: at least one parent-in-law in the household. The empowerment score is the weighted average of the six binary A-WEAI indicators provided in Appendix A.

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